THE

Lumleian Lectures

ON

THE DIGESTIVE FERMENTS, AND THE PREPARATION AND USE OF ARTIFICIALLY DIGESTED FOOD.

Delivered before the Royal College of Physicians,

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LECTURE III.—PART I.

THE suggestion to administer to invalids artificially-digested food appears at first sight a somewhat startling proposal. So great an interference with the order of nature would seem to go beyond the legitimate province of art; but when we reflect how largely art already interferes in the preparation of our food, the taking of this further step will appear less surprising. The practice of cooking is in reality as complete a departure from the ways of untutored nature as artificial digestion would be. Among the almost countless species of animals, not one of them, except man alone, cooks his food, insomuch that man has, not inaptly, been defined as the cooking animal.

Effects of Cooking.—The process of cooking fulfils far more important ends than that of improving the savour of food—far more important even than the mechanical disintegration which generally attends the process. It produces certain chemical changes in several of the most important alimentary principles which render them incomparably more susceptible to the action of the digestive ferments than in the uncooked state. The discovery of the use of fire-heat in the preparation of his food must indeed have constituted one of the earliest and most important steps in the process by which man has emerged from the ranks of the dumb creation. The stores of proteid and farinaceous nutriment contained in the seeds of cereals and leguminous plants, and in the bulbs, tubers, roots, and succulent stems of certain vegetables, are, in the raw state, nearly altogether beyond his powers of digestion. By the discovery of the art of cooking these immeasurable stores were at one stroke laid open to him. It is moreover chiefly by the same art that he has been enabled to take his food at intervals, in separate meals, and has thereby been for ever relieved of the necessity which is imposed on all animals in the wild state of having to spend almost the entire of their waking hours either in seeking after their food, like the carnivora, or in consuming their food, like the vegetable feeders. This immunity secured to him the untold advantage of possessing the leisure requisite for the cultivation of his higher faculties.

The practice of cooking is not equally necessary in regard to all articles of food. There are important differences in this respect, and it is interesting to note how correctly the experience of mankind has guided them in this matter. The articles of food which we still use in the uncooked state are comparatively few, and it is not difficult in each case to indicate the reason of the exemption. Fruits, which we consume largely in the raw state, owe their dietetic value chiefly to the sugar which they contain; but sugar is not altered by cooking. Salads may be regarded more as a relish for other food, and as having a *quasi*-medicinal purpose, rather than as a substantial source of nutriment. Milk is consumed by us both cooked and uncooked, indifferently, and experiment justifies this indifference, for I found on trial that the digestion of milk by pancreatic extract was not appreciably hastened by previously boiling the milk.

Our practice in regard to the oyster is quite exceptional, and furnishes a striking example of the general correctness of the popular judgment on dietetic questions. The oyster is almost the only animal substance which we eat habitually, and by preference, in the raw or uncooked state, and it is interesting to know that there is a sound physiological reason at the bottom of this preference. The fawn-coloured mass which constitutes the dainty of the oyster is its liver, and this is little else than a heap of glycogen. Associated with the glycogen, but withheld from actual contact with it during life, is its appropriate digestive ferment—the hepatic diastase. The mere crushing of the dainty between the teeth brings these two bodies together, and the glycogen is at once digested without other help by its own diastase. The oyster in the uncooked state, or merely warmed, is, in fact, self-digestive. But the advantage of this provision is wholly lost by cooking, for the heat employed immediately destroys the associated ferment, and a cooked oyster has to be digested, like any other food, by the eater's own digestive powers.

With regard, however, to the staple articles of our food, the practice of cooking it beforehand is universal. In the case of farinaceous articles cooking is actually indispensable. When men under the stress of circumstances have been compelled to subsist on the uncooked grain of the cereals, they have soon fallen into a state of inanition and disease. By the process of cooking, starch is not merely liberated from its protecting envelopes, but it suffers a chemical change, by which it is transformed into the gelatinous condition, and this enormously facilitates the attack of the diastatic ferments. A change of equal importance seems to be induced in the proteid matter of the grain. I found that the gluten of wheat was incomparably more digestible, by both artificial gastric juice and by pancreatic extract, in the cooked than in the uncooked state. In regard to flesh meat the advantage of cooking consists chiefly in its effects on the connective tissue and the tendinous and aponeurotic structures associated with muscular fibre. These are not merely softened and disintegrated by cooking, but are chemically converted into the soluble and easily digested form of gelatine. I made some instructive observations on the effects of cooking on the contents of the egg. The change induced by cooking on egg albumen is very striking. For the purpose of testing this point I employed the solution of egg albumen before spoken of, made by mixing white of egg with nine times its volume of water. This solution when boiled in the water-bath does not coagulate nor sensibly change its appearance, but its behaviour with the digestive ferments is completely altered. In the raw state this solution is attacked very slowly by pepsin and acid, and pancreatic extract has almost no effect on it; but after being cooked in the water-bath, the albumen is rapidly and entirely digested by artificial gastric juice, and a moiety of it is rapidly digested by pancreatic extract.

My object in making these remarks is to show that the changes impressed on food by cooking form an integral part of the work of digestion—a part which we of the human race get done for us by the agency of fire-heat—but a part which the lower animals are compelled to perform by the labour of their own digestive organs. It must also be borne in mind that the digestive process carried on in the alimentary canal is, strictly speaking, executed on a doubling of the exterior surface, and not in the true interior of the body. If we take all these considerations into account, it would appear, I think, not unnatural that we should try to help our invalids by administering their food in an already digested, or partially digested, condition. We should thereby only be adding one more to the numberless artificial contrivances with which our civilised life is surrounded.

PREPARATION OF ARTIFICIALLY-DIGESTED FOOD.

Dr. Pavy[1] was, I believe, the first to carry into actual practice the idea of preparing an artificially-digested food. At his suggestion, Messrs. Darby and Gosden introduced a preparation which consisted of meat reduced to a fluid state by artificial digestion. The formula for this preparation has not, so far as I know, been made public. It is still in the market, and is sent out and advertised by Savory and Moore under the title of "Darby's Peptonised Fluid Meat." A specimen of this preparation is on the table before me. It has the appearance of a light brown very thick treacle. It has a strong salt taste and an agreeable meaty flavour, without any bitterness. It is mostly soluble in water. The solution does not precipitate on boiling, nor with nitric acid, and it gives a strong reaction of peptone, with Fehling's solution, and with tannin.

I have also before me a specimen of artificially-digested meat prepared by Mr. Benger. It is a greyish-looking extract, with a pleasant meaty flavour, and is quite devoid of bitterness. It dissolves mostly in water, and the solution

[1] A Treatise on Food and Dietetics. 2nd ed., p. 550.

gives the usual reactions of peptone in great intensity. Mr. Benger informs me that it is made by operating, at a temperature of about 140° F., on finely triturated raw beef with pancreatic extract and a little carbonate of soda. The solution thus obtained is neutralised with hydrochloric acid, and then evaporated at 212° F. to the consistency of a solid extract. Both of these preparations appear to me to be much superior in value to any of the meat extracts hitherto introduced.

But, however useful preparations of this class may prove to be, in a limited range of circumstances, it is pretty evident that if artificially-digested food is to be employed on the large scale, and among all classes, means must be found to bring the preparation of it within the range of culinary operations and the apparatus of the kitchen and sick-room.

The difficulty hitherto encountered in the production of an artificially-digested or peptonised[2] food, suitable for invalids, is mainly owing to the use of the gastric method in its preparation. If you subject any native article of food—say milk, bread, egg, or meat—to artificial digestion, with pepsin and hydrochloric acid, you destroy more or less completely the grateful odour and taste, and the inviting appearance, which made it desirable as food, and convert it into an unsavoury mess, from which the human palate turns away with disgust. The unsavouriness of artificially-digested food is, however, not due to any ill taste or smell inherent in the products of digestion—which, when purified, are both odourless and free from any unpleasant flavour—but to a number of bye-products of various kinds, which accumulate as digestion proceeds. One of these bye-products is a substance with a pure bitter flavour, which seems to be a constant accompaniment of gastric digestion. It is also developed, in some cases, in the later stages of pancreatic digestion. I have not observed this bitter substance, except in the digestion of proteids. It is evidently a normal educt of the process, and its presence probably accounts, in most cases, for the bitter flavour of the eructations, of which dyspeptics complain, and which is generally attributed to the regurgitation of bile. It would be interesting to know more about this substance.

My own efforts to produce a palatable peptonised food have been chiefly directed to the pancreatic method. The pancreas excels the stomach as a digestive organ, in that it has power to digest the two great alimentary principles, starch and proteids; and an extract of the gland is possessed of similar endowments. This double power is a manifest advantage in dealing with vegetable aliments, which contain both starch and proteids.

Any extract of pancreas may be used for the preparation of artificially-digested food, but the most suitable are those prepared with dilute spirit or chloroform-water. The extract sent out by Mr. Benger, under the name of "Liquor Pancreaticus," is an almost faultless pharmaceutical preparation. It is made by extracting perfectly fresh and finely-chopped pancreas, with four times its weight of dilute spirit. By some ingenious devices, Mr. Benger has succeeded in overcoming the mechanical difficulties of the manufacture, and has produced an extract which possesses the diastatic and proteolytic properties of the pancreas in a highly-concentrated degree. It is a nearly colourless solution, with very little taste or smell beyond that of the spirit used to preserve it. It is of this preparation that I must be understood to speak in what I have now to say on the production of artificially-digested food by pancreatic extracts.

My attention was first turned to the artificial digestion of milk, and I soon found that it was possible, by means of pancreatic extract, to digest this important article of food with comparatively little disturbance of its taste and appearance. Milk contains all the elements of a perfect food, adjusted in their due proportion for the nutrition of the body. Two out of its three organic constituents—namely, the sugar and the fat—exist already in the most favourable condition for absorption, and require little, if any, further assistance from the digestive ferments. It is therefore obvious that if we could change the casein of milk into peptone without materially altering the flavour and appearance of the milk, such a result would go far towards solving the problem of supplying an artificially-digested food for the use of the sick.

Pancreatic Digestion of Milk.—When milk is subjected to the action of pancreatic extract, at a temperature of 100° F. (38° C.), in an open glass vessel, a series of changes take place in it which are highly interesting to watch. The first thing that arrests the observer's notice is that the tough wrinkled skin which quickly forms on the surface of warm milk when exposed to the air is either not produced at all, or is only produced in a very imperfect degree. In its stead there forms a slight brittle and perfectly smooth pellicle of quite a different appearance. The next thing noticed is that the milk becomes more or less softly curdled. By and by the curds begin to redissolve, and the milk gradually reassumes its originally diffluent condition. A portion of the curd is, however, very resistent, and remains undissolved for many hours. If the milk be diluted beforehand with one-third or one-fourth of its bulk of water, this curdling phase is altogether omitted, or is only observed as a slight and transient thickening. Next follows a very curious change of aspect. The milk loses its glossy white appearance, and gradually assumes a dull yellowish-grey shade which is characteristic, and the degree of which enables the practised eye to judge with considerable precision how far the peptonising process has advanced. This change of aspect is, however, by no means conspicuous, and would scarcely be remarked in a cursory observation, except by comparison with unaltered milk. While these changes are proceeding, the milk gradually loses its proper flavour, and at length develops a pure bitter taste, which is to many palates not disagreeable. No really unpleasant flavour is produced, unless the process is allowed to go on to incipient decomposition.

The progressive transformation of the casein into peptone, of which these outward signs are the indications and accompaniments, may be followed by testing the milk from time to time with acetic acid. At first the addition of the acid causes an abundant precipitation of curdy matter, but this reaction progressively diminishes in intensity until at length it ceases altogether. When this point is reached the transformation may be regarded as complete. All the casein has been changed into peptone—even nitric acid no longer causes a precipitate. The time occupied in the transformation (supposing the temperature and the activity of the preparation to be constant) depends on the quantity of pancreatic extract added, and may be made to vary from a few minutes to several hours. In the ordinary operation of preparing peptonised milk for invalids, two or three teaspoonfuls of the liquor pancreaticus are added to one pint of milk, diluted with a fourth of its bulk of water. With these proportions the process is usually completed in from two and a half to three hours.

[2] I may be permitted to use the word "peptonised" as a convenient abbreviation for the phrase "artificially digested."

Clinical Lectures
ON
LOCOMOTOR ATAXIA.

Delivered at the National Hospital for the Paralysed and Epileptic,

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LECTURE III.

AT the last lecture I exhibited three patients affected with tabes dorsalis. B—— was a typical case of the disease, with ataxic gait and inco-ordinate movements of the hands, lightning pains of excruciating character, and diplopia, amongst other symptoms. A—— had no ataxia of gait, but all the other characteristics of tabes were well marked. V—— was a thoroughly representative case, with no symptom wanting to complete the picture. All three, you will remember, showed entire absence of patellar tendon-reflex, the quadriceps extensor muscle retaining at the same time its normal capacity for being excited to contraction by a blow or by induced electrical currents.

Now in each of these cases, there was that condition of pupil to which attention was first called by Argyll Robertson.[1] The pupils do not contract to light, but they do

[1] Edin. Medical Journal, December, 1869. See also an interesting article on the eye-symptoms in locomotor ataxia, by Dr. Grainger Stewart: Brain, July, 1879.

contract during accommodation. I purposely refer to this peculiar condition of the pupil just now, because it seems to me that it constitutes a further instance of that removal of reflex in tabes of which so remarkable an example is offered by the absence of response to a blow upon the patellar tendon. The symptom is of great importance, for it is extremely frequent. Some highly-interesting experience has been published by Vincent on this point.[2] Out of fifty-one tabetic patients which he had the opportunity of observing in Charcot's clinique there were only four whose pupils reacted normally. In seven there was complete immobility of the pupils (usually combined with amaurosis), and in forty the pupils did not react, or reacted imperfectly, to light, but contracted during accommodation.

It occurred to me that the ophthalmoscope would offer a convenient mode of testing this symptom, the examination thus being able to be made at the same time that the state of the fundus oculi is observed. The following is the mode of examination which I have devised, and which answers perfectly. The patient should be directed to look over your shoulder at some object in the distance. With the ophthalmoscopic mirror you then cast a strong light upon his eye, whilst at the same time you watch for any variation in the size of the pupil through a convex lens of about +12 placed behind it. Supposing that the pupil does not contract to light, the patient may next be told to look alternately at the distant object and at one almost in a line with it, but within ten inches (or still nearer, if he be myopic) of his eye. Uniform illumination of the surface of the eye should be maintained during the continuance of the examination, and the diameter of the pupil watched as the patient's gaze is shifted from one object to the other. It is necessary to be careful that no fallacy creeps in from the patient regarding your face (and thereby accommodating), when he should be looking at a distant object.

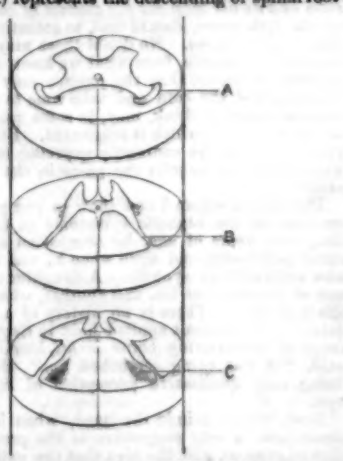
It appears to me (and I am alone responsible for the suggestion) that a very interesting generalisation can be derived from this symptom. It may be put as follows. As I have said before, in a large proportion of cases of tabes the natural movement of the iris consequent upon light falling upon the eye does not occur, or occurs only slightly and imperfectly. The iris does move, however (the pupil contracts), when the patient looks at an object placed near to his face. Now, to quote Donders, "the movements of the iris are of two kinds, reflex and voluntary. Reflex action is exhibited as constriction of the pupil in consequence of the stimulus of incident light upon the retina." It is this reflex movement which is so frequently abolished or impaired in tabes. The movement (contraction of the pupil) which is associated with accommodation for near objects, and which, as Donders shows, is to be considered voluntary, remains, in the large majority of cases, unimpaired. We cannot help seeing in this a remarkable analogy with what happens in the leg. The tabetic patient can kick his foot upwards—i. e., voluntarily contract his quadriceps extensor muscle—perfectly well. The contraction, however, which in a state of health follows, by reflex action, the stimulus of a blow upon the patellar tendon, does not occur, or occurs only to a limited extent. Time will not permit me to go further into this interesting point. I would only remark that the fact described lends additional support, so far as it goes, to Pierret's view, that tabes essentially attacks the *sensory* side of the cerebro-spinal nervous system. Reflex movements, as we know, are excited by impulses which travel along afferent (sensory) nerves.

In the three patients referred to an important symptom has occurred in addition to those which have been already described. B—— has suffered occasionally from "darts of pain from one side of his head to the other." A—— has anæsthesia of the left half of his face and the interior of his left cheek. "In eating he is apt," he tells us, "to bite the cheek." He can feel but little on the left half of the tongue, and his taste on that side is not so perfect as on the right. He does not feel a touch (I learn from Mr. Broster's notes) on the left half of the palate, and scarcely on the left half of the pharynx. He also suffers from pains in the back of his head." V——, when he came to us, was affected with facial paralysis of the right side, which had immediately followed severe electric-shock-like pains of three weeks' duration. I shall have to show you a fourth case, in which one-half of the face and tongue is anæsthetic; a fifth case, in which the lightning pains in the head have been so severe as to give rise to the suspicion of intracranial tumour, and a sixth case, which began with sharp shooting pains in the head.

In these three patients we have pains or anæsthesia occurring in some part of the head. How are we to explain this in a disease which affects in so pronounced a fashion the posterior columns of the cord and posterior roots of spinal nerves? As regards the pains which A—— experiences at the back of his head, they occur in the district principally innervated on each side by the great occipital nerve, the internal branch, you will remember, of the posterior division of the second cervical nerve. We have, therefore, to do with a spinal nerve, after all, although its distribution is to the head. It is evident that such a mode of irritation of its posterior root as causes, when the posterior roots of the nerves supplying the trunk and extremities are in question, the characteristic "lightning pains" in them, is sufficient to explain the occurrence of similar pains at the back of the head.

In the two other cases the pains occupy the district supplied by the fifth nerve. According to Quain the sensory portion of the fifth nerve arises from a collection of grey substance beneath the outer part of the floor of the fourth ventricle in its middle third. In front of the nucleus a bundle of descending fibres mingled with much grey matter passes down to the lower part of the medulla oblongata. Huguenin describes this descending root as forming at this point a crescent, which encloses the gelatinous substance of the posterior horn. Hence it can be traced as low, it is thought, as the level of the third or fourth cervical vertebra.

In the accompanying diagram the crescent-like cup of the posterior horn (A) represents the descending or spinal root of



the trigeminus about where the medulla oblongata ceases and the cord begins. B indicates the posterior root zone of the second cervical nerve (the sensory origin of the great occipital nerve). The lowest section in the diagram is supposed to be at about the level of the fifth cervical nerve, and C shows sclerosis of the posterior root zone, the seat of the essential change in tabes. It is evident, then, that an extension upwards to B and A of the changes connected with the posterior root zones of the cord (C) must involve in succession the sensory origin of the great occipital nerve and the descending root of the trigeminal, and in this way we have the nerves which supply between them almost all the integument of the head and face in continuous relation with that particular system of fibres, sclerosis of which gives rise to the pains of tabes.[3] Now, it occurred to Pierret to search for changes in the descending root of the fifth in a case of tabes. In a certain case he found that there did exist around this inferior nucleus of the trigeminal nerve

[2] Des phénomènes oculo-pupillaires dans l'ataxie locomotrice et la paralysie générale des aliénés. Par Ch. Vincent: Paris, 1877.

[3] For the sake of simplicity the great occipital nerve is alone considered. The remarks apply equally, of course, to the small occipital and great auricular branches of the second and third cervical nerves.

a well-defined sclerosis, the form and connexions of which recalled exactly what is found in the cord of ataxic patients. With this fact before us, and bearing in mind the relations which I have described, we shall not be surprised to find that symptoms pointing to lesion of the sensory portion of the fifth nerve and the great occipital are really very common in tabes. It is remarkable that this is a point which is frequently to a great extent overlooked, the oculo-motor symptoms and those belonging to the extremities having to a large extent monopolised attention. From a diagnostic point of view its recognition is important. Unless we bear in mind this contingency, a patient's description of intense pain in the head, so severe as to dwarf other symptoms by contrast, is liable to put us off the scent of tabes dorsalis. May not certain cases of obstinate cranial neuralgia prove to depend upon sclerosis limited to a certain district of the medulla oblongata? It is worth considering whether there are any points to guide us in reference to this possibility.

In an ordinary case of trigeminal neuralgia it is most common to find the pains limited to the district of one or more of the three divisions of the nerve, and it is not often that exploration fails to discover one or more tender spots in situations where experience leads us to expect them to be found. But in the pains (otherwise neuralgic in character) which occur in the region of the fifth nerve in tabes, this accurate mapping out of the district of one or other division of the nerve is not, according to my experience, observed. Moreover, the pains are much more liable than in the case of ordinary tic to affect both sides of the head, either coincidently or in turn. And this is what might be expected; the changes in the posterior columns being disposed to attack more or less symmetrically, though usually not with equal violence, the two sides. The same remarks apply to the occipital nerves. In occipital neuralgia, ordinarily so termed, on the other hand, the district of one or other nerve, not of both, is usually the seat of pain. Flying, so called "neuralgic" pains in the head, then, *when they attack both sides and do not map out the district of one or other division of the fifth nerve*, should lead to attentive examination for symptoms of tabes. No doubt these may be wanting, as it is quite conceivable, from what we know of the pathology of posterior sclerosis, that the disease may commence in the upper part of the cord and take time to descend; or even, there is reason to think, may, in some cases, remain limited to the locality in which it originated. But at a later period symptoms may be ordinarily expected to show themselves which will tend to refer the pains in the head to a tabetic origin.

The patient whom I now show to you presents a striking example of the cephalic symptoms of tabes. J. D—— is forty-nine years of age, by occupation a sweep. He had small-pox badly, and ague when he was a lad, and he has also suffered from syphilis. A daughter of his is imbecile, one of his sons has fits, and another, who is now blind, had fits in infancy. There is no history of a fall or mechanical injury. The patient applied here in September last on account of *excruciating pains in his head*, "as though," he said, "it was being scranched up." He was blind, there being only qualitative perception of light with the left eye.

Now, intense pain in the head, when it is coupled with amaurosis, is very suggestive of the presence of an intracranial tumour, and the idea that the patient was suffering from some encephalic growth crossed my mind at once, as he began to tell his story. When we came to examine him with the ophthalmoscope, we found that both optic discs were atrophied. Now this was, in the circumstances, to be expected, and the information which the fact afforded, although important, was not conclusive. If instead of atrophy of the discs we had found optic neuritis, this condition, when taken in connexion with the intense severity of the pain in the head, would have gone far towards enabling us to pronounce a somewhat confident diagnosis of intracranial tumour. But the condition was one of atrophy, and atrophy, as you are aware, may be (to speak only of two causes) either a consequence of optic neuritis or due to posterior sclerosis. Now, in most cases in which the atrophy is recent one has not much difficulty in saying to which category a particular example is to be referred. When atrophy succeeds optic neuritis, there is usually to be found for some time afterwards more or less trace of effusion about the disc, the edge of which frequently wears a blurred look. The artery is often diminished in calibre, and the veins may retain more or less of the tortuosity by which they were characterised when the disc was swollen. In sclerosal atrophy, on the other hand, these signs are wanting, and the vessels, undiminished in size, appear as if applied against an opaque white or bluish-green disc, which presents a clear and sharply-cut outline. But these distinctions are not always so pronounced, and in this particular instance one would have felt disinclined to say positively whether the observed atrophy had resulted from optic neuritis or not.[4] It is true that there were no signs of antecedent swelling of the disc or effusion, and no tortuosity of the vessels, such as one commonly sees after optic neuritis. But it is surprising how completely the swelling of a disc may after a time disappear, and what little evidence of the nature of past changes is sometimes left. The ophthalmoscopic signs, therefore, although they pointed only to a wasting of nerve-fibres, with overgrowth of connective tissue, were not, properly speaking, conclusive, especially when the condition was taken along with the clinical history of terribly severe pain in the head. I may mention here that I lately examined after death a man who had incomplete atrophy of the optic disc in one eye, and some amblyopia in the other. His symptoms were purely cerebral, and he died of brain softening. Yet my colleagues, Dr. Hughlings Jackson and Dr. Gowers, who were kind enough to examine the eye independently during life, were of opinion that the atrophy was not secondary to neuritis, and Mr. Brudenell Carter, who also obliged me by examining him, thought that it was of the kind seen in locomotor ataxia—a sclerosal atrophy, in fact. I was, for my own part, doubtful, but more disposed to think it secondary to neuritis, for one or two of the veins at some distance from the disc were somewhat more tortuous than appeared natural. However, after death, I found a small tumour pressing upon the left optic tract, and flattening it. Such pressure might cause an atrophy, which would be indistinguishable from that of tabes. Whether or not there had been at any time antecedent neuritis in connexion with the presence of the tumour must remain, I think, very doubtful. At any rate, there was cause enough for the atrophy in the pressure of the growth. I mention the case as an illustration of the doubt which may sometimes exist upon this point, and as a reason why, in a man who came to us with optic atrophy, and intense pain in the head, I did not feel inclined to decide at once whether his case was one of intracranial tumour or not. Our next step was to test his patellar tendon-reflex. It was absent in both legs. Here was evidence, therefore, at once of the existence of a spinal lesion. This reflex is not lost as a result of cerebral lesions, so that, whatever else there might be (and this, of course, did not preclude the existence of an intracranial growth), there was lesion of the spinal cord or spinal nerves. The clue thus given was followed up, and the following results elicited. Two years and a half previously his sight began to fail, the right eye first. At times he saw double. For some years he had been subject to pains in his thighs, on and off "very quick indeed"; "like an electric shock," he said, "sometimes so sharp that he would jump up, or be obliged to get up and straighten his limbs." The pains in the head, upon which I have insisted, did not begin till about two years previous to his coming under observation, when the pains in the limbs had already existed for a long while. He worked, it seems, up to Christmas, 1878, but then found that he could not see the numbers on the doors of the houses. He was not aware that he staggered until October, 1878, when, whilst sweeping a chimney in a lady's house, he was ordered out "on account of being drunk," being at the time, he pleads, perfectly sober. Latterly, the pains have affected the arms as well as the legs and head. The patient's own description of the pains, as taken down by Mr. Broster, is very characteristic. "It is like," he says, "a violent shock of rheumatics coming lightning speed up and down your limbs, flying up and down." There is no loss of cutaneous sensibility anywhere, but when he is in bed he does not know where his feet are. The muscular power of his limbs is not very perceptibly impaired, but he says that his right leg seems to be getting weak. His pupils are very small indeed. They do not contract to light, but they contract during accommodation.

There can be no doubt that the patient is suffering from tabes dorsalis, and as little, I think, that the optic atrophy is sclerosal, and the pains in the head due to lesion of the descending root of the fifth, and probably also of the great

[4] Gowers, in his able work on Medical Ophthalmoscopy, remarks of "primary" and "secondary" atrophy, "it is doubtful whether the two forms can be distinguished by the ultimate aspect of the disc."

occipital nerves. The pains he tells us affect both sides of the head, and the forehead.

Whilst upon this subject of optic atrophy, I will show you another man who has been kindly sent to me by Mr. Macnamara. He is a labourer, forty-four years of age, who besides suffering from aortic regurgitation, is affected with incomplete atrophy of both optic discs, but especially of the left. The disc presents a lustre like that of a tendon. When asked if he had difficulty in walking, he said he "could walk as well as ever he did in his life," and illustrated his assertion by a very fair performance. You see, indeed, that there is nothing in his gait which would be likely to attract your attention. His pupils are small. There is a very slight reaction in the right one, and the left does not contract at all to light; but they both act well enough during accommodation. He tells us, and I have inquired most carefully on this point, that he has never had any pain whatever, neither had he seen double; but when we tested his patellar tendon-reflex, we found that there was none in either leg, and when we inquired more particularly about staggering, he allowed that his brother when walking with him had more than once said, "Why, anyone would think you were drunk."

With the exception, then, of this reported stagger, only occasionally observed, the patient presents no sign of tabes to help us in our diagnosis of the cause of the optic atrophy, except the absence of patellar tendon-reflex, and the existence of the "Argyll Robertson symptom" (to use Dr. Grainger Stewart's designation). Can we doubt that they are amply sufficient?

But where even one of these two symptoms is absent I am disposed to think that in certain cases we may make our diagnosis with a good deal of confidence. I will give you an instance. A gentleman, aged thirty, was lately brought to me by Dr. Roose, of Brighton, on account of increasing blindness, supposed to be due to lesion of the central nervous system. The patient had enjoyed excellent health except for an attack of syphilis five years previously. Last May he found that vision with the right eye was failing, and this difficulty has gradually increased, so that there is now only qualitative perception of light with it. It was some time after the right had begun to fail that he found the left eye going also in the same way. On examination with the ophthalmoscope I found what appeared to me to be the signs characteristic of grey degeneration (sclerosal atrophy) of each optic nerve, most advanced in the right. The discs presented no atrophic excavation. They had a tendinous lustre, the veins were rather large in proportion to the arteries, and there was a slight tortuosity in one of them. Patient's perception of colour was imperfect. Scarlet was called "brownish-yellow," green "slaty-brown," a vivid magenta "pale blue." Blue and yellow were described correctly. Careful inquiry showed that he had never had any pain in the head, vomiting, or any other cerebral symptom, such as might have been expected were the atrophy the result of optic neuritis. But, on the other hand, there had been no flying pains in his limbs nor diplopia. Nor was there any ataxia of gait or tottering with the eyes shut. The pupils acted readily to light. There was no anæsthesia, and no trouble with the genito-urinary organs. There was nothing indeed to be noted but the gradually increasing atrophy of both optic nerves. With one exception. I found the patellar tendon-reflex absent in the right leg, and present to only a slight degree in the left. The quadriceps extensor muscle responded readily to blows upon it and to induced currents.[5]

If I have succeeded in conveying an idea of the importance of this test, as exemplified in many forms of the disease we are considering, you will, I think, be disposed to see in this case, as I do, one of tabes dorsalis, which as yet presents itself in a very restricted form.[6]

[5] Since the above was written the tendon reflex has disappeared also from the left leg.

[6] Fourteen years ago Dr. Hughlings Jackson pointed out, in the Medical Times and Gazette, September, 1866, that there was at least a clinical gradation in the symptoms from what was called "uncomplicated amaurosis" to locomotor ataxia. He founded this idea upon the occurrence of characteristic shooting-pains in many cases of amaurosis, in which the ophthalmoscopic changes in the discs were of the character of those met with in tabes. He believed that amaurosis was sometimes the first symptom of this disease. For some time past this view has been accepted, and cases of optic atrophy, with lightning pains and without other symptoms, have been classed with locomotor ataxia. It is only since quite a recent date that Westphal's observations in reference to absence of patellar tendon-reflex have brought us the most important confirmation of this view in the occurrence of the symptom, as in the last case, where none of the other recognised signs of locomotor ataxia have presented themselves.

LIVER ABSCESS AND ANTISEPTIC PARACENTESIS.

BY SIR J. FAYRER, M.D., F.R.S.

(Continued from p. 635.)

I AM indebted to Surg.-Major Don, A.M.D., for the following information respecting the relative frequency of hepatitis and liver abscess in European soldiers in foreign stations:—

Year.	Strength.		Admitted.	Died.	Invalided.
		Bengal.			
1870	34,090	Hepatitis	1920	152	249
1871	35,452	Hepatitis	1919	5	241
1872	36,839	Hepatitis	1814	3	210
		Abscess	89	55	43
		Ab. with dysent.	45	43	—
		Madras.			
1870	9,936	Hepatitis	635	41	131
1871	10,684	Hepatitis	713	41	58
1872	10,892	Hepatitis	586	5	70
		Abscess	43	35	—
		Bombay.			
1870	10,557	Hepatitis	424	11	49
1871	10,838	Hepatitis	464	18	30
1872	10,898	Hepatitis	350	12	41
		Abscess	12	8	—
		China.			
1870	546	Hepatitis	15	0	1
1871	516	Hepatitis	8	0	0
1872	789	Hepatitis	15	1	0
		Abscess	1	1	—
		Japan.			
1870	624	Hepatitis	15	1	1
1871	395	Hepatitis	6	1	0
1872	—	—	(No returns for this year)		
		Straits.			
1870	571	Hepatitis	34	1	0
1871	571	Hepatitis	21	0	5
1872	708	Hepatitis	26	0	0
		Abscess	1	1	—
		Ceylon.			
1870	906	Hepatitis	37	5	10
1871	(Not given)	Hepatitis	44	1	10
1872	1001	Hepatitis	40	5	2
		Mauritius.			
1870	665	Hepatitis	22	0	1
1871	(Not given)	Hepatitis	13	1	1
1872	469	Hepatitis	4	0	1
		Cape and St. Helena.			
1870	2441	Hepatitis	66	4	16
1871	2473	Hepatitis	24	0	6
1872	2484	Hepatitis	23	1	3
		West Indies.			
1870	1432	Hepatitis	2	0	0
1871	966	Hepatitis	12	0	0
1872	1112	Hepatitis	2	—	2
		Abscess	1	0	0
		Bermuda.			
1870	1908	Hepatitis	8	0	1
1871	1733	Hepatitis	6	0	2
1872	1770	Hepatitis	5	0	0
		Canada.			
1870	4519	Hepatitis	10	0	0
1871	2383	Hepatitis	12	1	1
1872	1602	Hepatitis	3	0	9
		Gibraltar.			
1870	4397	Hepatitis	17	0	4
1871	4428	Hepatitis	16	0	6
1872	4066	Hepatitis	9	0	4
		Malta.			
1870	4799	Hepatitis	26	5	6
1871	4977	Hepatitis	26	2	7
1872	4855	Hepatitis	27	0	4
		Abscess	2	1	0

From these returns it will be seen that the disease is more prevalent in India than in the West Indies.

It is thought by some that liver abscess is due to absorption of septic matter from dysenteric ulceration in the bowel; others have thought that liver abscess is the cause, and not the result, of dysentery. I am inclined to regard them as independent, though often co-existent, and due to the same climatic causes; and I believe that it occasionally does *result* secondarily by absorption from the ulcerated bowel, and is then of the nature of pyæmic suppuration, in which case it is apt to be multiple, and more serious in character than the ordinary form of abscess.

The early symptoms preceding suppuration in the liver are those of congestion, swelling, pain, high temperature, fever preceded by chills or well-marked rigors, and sweats. There is cough, pain in the right shoulder and hypochondrium, inability to lie on the left side, owing to the weight of the swollen and dependent liver; nausea or vomiting, from pressure on the stomach, or irritation of the vagus; a yellow tinge of the skin and eyes; sometimes a high-coloured state of the urine and lithic deposits. These symptoms, together with the bulging of the side, between or below the ribs, leave little doubt of what has occurred. But there are cases in which the symptoms are not well pronounced, and yet an abscess may form and escape detection until bulging and fluctuation, or sudden evacuation of its contents through the bowels, the lung or stomach, or into the peritoneum, reveals the true state of matters. In the last case the result is generally fatal; in the former sudden exhaustion, amounting to collapse, may accompany a discharge of pus, or suffocation from effusion in the lung may prove fatal. The amount of pain depends on the part of the viscus implicated. If the matter be deep-seated in the parenchyma, at a distance from the peritoneum, the pain is comparatively slight or absent. If it approach the surface, or commence there, the pain may be severe. In any case there is a sense of distress and uneasiness felt most distinctly when the patient turns on his left side. Decubitus on *either* side is often painful.

In many cases of hepatitis, the patient is suffering also from malarial cachexia, and is liable to recurrences of febrile paroxysms which render it doubtful whether the chills or rigors are due to this or to suppuration; where there has been no malarial fever, the chills or rigors may be so slight, or so mixed up with other uneasy sensations, as to have escaped notice, and the patient denies having had them at all.

Again, if the abscess be small and central or posterior, the pressure is so slight on surrounding parts that the stomach is not affected, neither is pain felt in the right shoulder, nor uneasiness in the left side in the recumbent posture. In such cases the patients are apt to be regarded as suffering simply from general deterioration of health, disordered stomach and bowels, and congested liver from malarial cachexia, until the true nature of the case is revealed by the occurrence of the symptoms I have just described, or when, after death from diarrhœa, exhaustion, or other cause, it may be discovered that either an encysted and quiescent abscess still exists; or a certain amount of caseous matter in a contracted cavity shows that an abscess had formerly existed, but has undergone a process of drying up; or after years of broken health fresh inflammation may light up suppuration in or around an old abscess, and prove rapidly fatal.

The following cases will illustrate the subject under consideration:—

CASE 2.—An English officer, aged twenty-nine, was exposed, on military duty, to the fierce July sun in the north-west of India during the greater part of an afternoon. This was followed by severe headache and general malaise. A few days later he felt severe pain in the right side, and was placed under treatment. Three days later, on the 16th, the pain increased, and he had fever; leeches were applied over the liver. In the evening he had a rigor. During the next few days the pain increased; he had more leeches, aperients, and salines. The acute gave way to a diffused pain and weight in the hepatic region. Blisters were then applied. A swelling made its appearance four inches from the spine, below the ribs. He was then sent to Calcutta, where I saw him on the 4th September. He was weak and anæmic, with a yellow tinge of the skin. The liver was enlarged, and just below the last rib there was a fluctuating swelling. Pulse 100; skin cool and moist; no pain, but uneasiness and a sense of fulness in the side; breathing slightly embarrassed. His tongue was clean; bowels rather costive; appetite fair. I opened the abscess, and drew off through a cannula eighteen ounces of thick dark-coloured pus; the cavity was washed out with a solution of carbolic acid, one drachm to a pint of water. The cannula was left in the wound; the cavity yielded eight ounces of pus in the evening, and was again washed out with the carbolic acid and water.

Sept. 6th.—Drew off eight ounces; removed cannula, as it was causing irritation. There was no fever, and he was much relieved; the pulse less frequent. An aperient was given, as the bowels were confined. The wound was kept distended with a plug of lint soaked in glycerine and carbolic acid. Takes food and bitter beer with appetite. Quinine and sulphuric acid ordered; bowels to be kept open with sulphate of magnesia. Pulse 88; no fever.

8th.—Doing well, the quantity of pus daily diminishing; in the morning six ounces, evening two ounces. Eats and sleeps wells; is in very good spirits.

9th.—Continued to improve. Two ounces of pus drawn off this morning; half an ounce in the evening. No fever. Pulse 78 to 84. Appetite good. The saline aperient to be repeated when bowels are confined.

10th.—Half an ounce of pus this morning; a quarter of an ounce in the evening. The cavity is evidently contracting. Pulse 74. He looks better.

11th.—Was fatigued by preparations for a sea voyage. Three-quarters of an ounce of pus in the morning; about one drachm in the evening. Pulse slightly quickened. He sailed this morning for England.

A report came from Ceylon that he was well enough to go on shore for a walk.

This is a good example of simple abscess of the liver in a young man of steady and regular habits. There was no history of dysentery or diarrhœa; it apparently commenced by congestion, terminating rather insidiously, as so frequently happens, in suppuration, which probably commenced about twelve days after the first symptoms of congestion. As inflammation approached the surface, the pain increased, and peri-hepatitis caused adhesion of the right lobe to the parietes. There was reason to believe that the abscess was solitary, and not due to septic absorption from dysenteric ulceration. The prognosis was favourable, as latterly the abscess had caused little constitutional disturbance. The rapid contraction of the cavity showed that repair was vigorous. Recovery proceeded rapidly under the influence of change of climate and sea air.

The following case shows the insidious manner in which liver abscess sometimes forms:—

CASE 3. — A young Englishman, aged about twenty-one, of fair complexion and healthy, vigorous frame, of rather irregular habits, after a residence of three years in Bengal complained of anorexia, hepatic fulness, general sense of failing health, disordered bowels, sometimes confined, sometimes relaxed; tongue loaded. He was anæmic, and the skin had a yellow tinge; tongue coated; pulse quickened. There had been neither rigors, chills, cough, nausea, nor vomiting. The liver was enlarged downwards, but there was no bulging, neither much tenderness on pressure. Saline aperients, to relieve the portal congestion, were ordered, and he was sent to sea for change of air; returned in a few days, and went to reside a short distance from Calcutta, continuing to perform his official duties.

When I saw him some weeks later he looked pale and thin, but was in good spirits, and at his work as usual; indeed he had not been absent more than a day or two. Though still weak, he was rapidly regaining strength. He informed me that one day, soon after his return from on board ship, after dining with some friends, one of them, in romping, accidentally gave him a squeeze by bending his body, which compressed his side. This was followed immediately by symptoms of collapse, with coughing and vomiting of a large quantity—a basinful—of purulent matter. A liver abscess had opened into the stomach, and evacuated. On recovering from the shock, he soon began to regain strength, and before very long was restored to health.

This case shows how insidiously the liver may suppurate without more marked symptoms than may be seen in cases of malarious poisoning, in which the general deterioration of health is expressed by occasional feverish attacks, attended by some hepatic congestion; the first evidence of the formation of matter being its sudden evacuation in the manner described. On the other hand, the most characteristic indications may have been present, including rigors, chills, high temperature, sweats, vomiting, with hepatic swelling and pain, and subside without any evidence that pus has formed; indicating acute congestion, which has resolved, or that an abscess may have formed and been removed by absorption, or have opened into the intestine, and passed

away so gradually as to be unobserved by the patient, who has regarded it as a phase of diarrhœa, from which he was already suffering. In fact, the diagnosis of liver abscess often escapes detection by the most acute observers.

Another case is that of an English officer, aged forty-two, of slight frame, but previously in good health, who had been in India several years, and returned to England suffering from symptoms of hepatic disease.

CASE 4.—"Col. R. B—— went to India in December, 1868. Since that time has spent twenty-one months in England. Returned to India in July, 1874. Up to this his health had been good. In the beginning of February, 1877, when at Mhow, he began to be ill. Pain sometimes severe on the left side of the back of the head; his skin became yellow; he was feverish, his spleen was enlarged, and the left side bulged; this was blistered and soon subsided. The pain in the head continued; he lost flesh, and seemed weak and ill. On the 27th of February he embarked for England. In Bombay he got worse, and on the voyage to Port Said was very ill—restless nights, intense weakness, loss of appetite, hands tremulous, shivering fits, and night sweats. He arrived in England on 2nd of April. He had had excellent health in India previously, and led a most active and very temperate life. He was at Delhi in December and January, in tents. Very hot days, very cold at nights. He used to be out all day, but was very careful in protecting his head from the sun. It was not until a fortnight after his return to Mhow that he began to complain of pain in the head—the commencement of this illness."

I found that the liver was enlarged downwards; his skin was tinged with bile, his face pinched and anxious, his urine occasionally loaded with lithates, bowels constipated; pulse from 100 to 120 and 130, very easily excited; great debility and nervous depression; walks in a stooping attitude and looks feeble; slight tenderness on pressure over the lower margin of the liver, no pain nor enlargement of the spleen; other organs apparently normal. The morning temperature was 100° to 101°, but rose in the afternoon to 102° and 103°. The general aspect was that of one suffering from hepatic suppuration.

I watched this case with much interest for several weeks, during which the progress was slow but satisfactory. There was gradual return of strength, less nervous depression, improvement in the condition of the urine and secretions, and a steady decline of temperature from 103° to 100°, and 99° to 98°, especially when he was under the influence of five-grain doses of quinine and hydrochlorate of ammonia, a valuable remedy, for the use of which in liver disease we are indebted to Dr. Stewart, B.M.S., taken three times a day. Pulse gained force, slower and less irritable; appetite, spirits, and the general aspect of convalescence gradually increasing.[1] It is impossible to say whether suppuration had taken place or not. A small abscess may have formed, that either had become quiescent and was gradually drying up, or may still some day reveal itself through the bowels, if it had not already done so unobserved.

The thermometer is, perhaps, the best indication of the changes going on in the liver, and the absence of other marked symptoms makes it difficult to form a diagnosis. One can only wait and watch the tide of daily temperature, pulse, and the state of the excretions. The continued depression of health, and the persistence of high temperature in such cases, especially if accompanied by chills and sweating, even though slight, point to suppuration; and it must be remembered that pus *may* become encysted, quiescent, and so localised as to have little or no apparent disturbing effect on the general health, and yet such a condition is fraught with danger from any accession of inflammation in the cavity or its vicinity, and the consequent increase of the primary abscess, or the development of new ones. Hence the importance of great care on the part of those who have suspected liver abscess, and the danger of exposure to any cause, climatic or dietetic, that might tend to set up fresh mischief.

CASE 5.—M. D——, aged twenty-three, came under my observation in Calcutta in April, 1867. He had been in Calcutta for about three years, had enjoyed good health until recently, and was neither intemperate nor irregular in his habits. On March 4th he had had ordinary fever, but when I saw him in April, though there had been no great amount of pain, there were well-marked indications of the formation of pus, but neither jaundice nor diarrhœa. The liver was enlarged downwards, and a prominence below the ribs was evidently due to an abscess. On the 19th of April I introduced a trocar and cannula, and gave exit to a large quantity of pus. The cavity was washed out with a weak carbolic solution, the cannula was left in, that more pus might be drawn off at intervals. He was much relieved, and soon improved. But to better his chances of recovery, and to get him away out of the intense heat of April in Calcutta, he was put on board a steamer, with the cannula still in the wound. He improved so much on the way home that it was removed before he reached Suez—"in about fourteen days." Within three months he had recovered, and ten years later I saw him in good health. He returned to India, and is, I believe, still there.

(To be concluded.)

[1] As I write, March 30th, 1880, he has come in to see me, having just returned from India. He looks in excellent health. Has had no liver trouble. Has recently suffered from renal calculus. Urine now healthy, except that it is rather phosphatic. It is interesting to note the occurrence of this calculus in reference to the damaged liver.

A NEW TREATMENT OF GONORRHŒAL OPHTHALMIA.

BY C. BADER,
OPHTHALMIC SURGEON TO GUY'S HOSPITAL.

GONORRHŒAL OPHTHALMIA, at all stages, is to the oculist a source of great anxiety. Whether local treatment—ice, bleeding, scarifying, caustics (all painful and often more than useless)—or general medical treatment (mercury, &c.), be employed, we meet cases, even if treatment be begun at an early stage, in which the sight of one or both eyes is lost.

The treatment adopted in the following cases suggested itself by the fact that mercury, if thoroughly applied locally, has a destructive effect upon contagion. In vaseline, in itself of antiseptic origin, we have an invaluable means of bringing and keeping mercury in contact with mucous membranes, such as conjunctiva, urethra, &c.; daturin or atropin are added to counteract disturbances which, during the ophthalmia, may proceed from the iris and deeper parts of the eye. An ointment was employed, consisting of nitric oxide of mercury one grain, daturin one-fifth of a grain, vaseline one ounce.

CASE 1.—J. R——, aged seventeen (January 21st, 1879), suffers from gonorrhœa, ninth day. When seeing the patient with Dr. Wooley of Dalston, he presented all the symptoms of gonorrhœal ophthalmia in its acute stage. Eyelids of right eye blue, red, swollen, and so tense that only the lower third of the cornea could be seen; it was yellow and opaque; there was profuse purulent discharge. The left eye was healthy.

I considered the eye nearly lost, and felt justified, instead of the usual treatment, to try the effect of an ointment made of daturin and nitric oxide of mercury, of each one-fifth of a grain, vaseline one ounce.

I thoroughly washed away the discharge with tepid water, then with a large camel's-hair brush freely, though with difficulty, pushed the ointment beneath the upper eyelid of the right eye; this caused no pain whatever. Both eyes were then bound up with lint thickly smeared over with the ointment. The attendant was informed of the dangerous nature of the discharge, and was told to wash it away every third hour, and to apply fresh lint spread over with ointment to the eyelids of the inflamed eye.

For four succeeding days I applied the ointment myself beneath the right upper eyelid. On the third day the patient became slightly delirious, probably from the effect of the daturin. The mercury was increased to one grain, the daturin remaining one-fifth of a grain.

On January 30th I received the following from Dr. Wooley:—"The eye is very much less swollen to-day, but he has complained of severe pain. The delirium, which he was suffering from, has not returned, and he has made good progress.

February 1st.—Much better; ointment applied beneath the upper eyelid as before; fresh lint used once daily only; pus washed away repeatedly during the day; cornea visible throughout lower third, still opaque but not ulcerating.

3rd.—Eyelids again swollen with much pus. From this

day rapid progress was made. As soon as the eyelids opened freely, the application of the ointment with the brush was discontinued, and only lint and ointment applied every morning to both eyes. The left eye kept free from inflammation throughout.

March 5th.—Both corneæ clear; eyelids open freely.

I saw the patient once during the summer. He was completely cured; both corneæ clear.

CASE 2.—W. W——, aged three years and a half (November 6th, 1879), was sent to me by Dr. Ward of Finsbury Circus. The father of the boy, on inquiry, stated that the boy had slept with a servant who suffered from gonorrhœa. To admit of the treatment being carried out carefully, the boy was taken into the eye ward, Guy's Hospital. On admission the left eye was sound, the right suffered from acute gonorrhœal ophthalmia (eyelids red, tense, swollen; much chemosis, with conjunctiva protruding, profuse purulent discharge). On examination under chloroform only the lower third of the cornea could be seen; it was clear, with the surface softening along the margin. Portions of the conjunctiva of the lower eyelid were covered with a grey opaque substance, as seen in mixed cases of diphtheritic and purulent ophthalmia.

The pus was thoroughly washed away with tepid water. The ointment, with a large camel's-hair brush, was well pushed between the upper lid and the eyeball, and thickly applied to the conjunctiva. Both eyes were kept bound up with lint thickly spread over with the ointment. Fresh lint was applied every morning. Every third hour during the day the discharge was washed away with tepid water (the left eye being bound up), and the ointment pushed beneath the upper eyelid. This caused no pain, and the boy bore it quietly. On the third day the grey covering had disappeared from the conjunctiva.

On Nov. 13th the application of the ointment beneath the upper lid was discontinued; the lint was changed every morning, and the lids cleansed with tepid water.

Nov. 17th.—The eyelids open well; the conjunctiva is still congested; the cornea smooth and clear.

28th.—Discharged cured.

CASE 3.—B. E——, aged seventeen, was admitted into the Eye ward on Jan. 13th, 1880. His medical man states, "The youth came to me ten days ago with the eye much in the same condition as it is now. He had a week's treatment with tonics and the daily dropping of nitrate of silver solution (one grain to an ounce). The boy suffers from gleet." The right eye was healthy. In the left cornea, near the outer margin, was a deep large ulcer near perforation; the adjoining cornea was infiltrated with pus; there is iritis, chemosis, swelling of eyelids, and slight purulent discharge.

The ointment (atropin being substituted for daturin) was applied beneath both upper eyelids, and both were kept bound up with lint smeared over with ointment. This was repeated daily.

Feb. 3rd.—Much improved.

10th.—The patient was discharged. Right eye sound; left eye, surface of cornea smooth, outer third opaque, pupil somewhat irregular, fairly dilated. Was told to wear a shade, and to apply the ointment to the inner surface of the under lid at eight, two, and five o'clock.

CASE 4.—E. T——, aged twenty-six (Feb. 12th, 1880), was admitted with purulent ophthalmia of both eyes. Left cornea, small opacity near outer margin; right cornea, two opacities. Some iritis. Much chemosis and swollen eyelids, with moderate purulent discharge. The ointment was applied beneath the eyelids at eight, two, and five o'clock daily, and the eye kept bound up with lint and ointment. No pain whatever on application of the ointment.

Feb. 20th.—Patient was discharged with dilated pupils; smooth cornea, slightly opaque. All swelling of eyelids and conjunctiva had disappeared. She was told to wear a shade, and to apply the ointment to the inside of the under lids at eight, two, and five o'clock.

CASE 5.—B. S——, aged four (Feb. 20th, 1880); badly fed; has had whooping-cough for the last two months; cannot be admitted into the Eye ward. Both eyes are affected; the eyelids swollen, purple, tense, can hardly be raised. Conjunctiva highly chemotic. Both corneæ transparent, peeling along the margin. The ointment (nitric oxide of mercury and atropia of each one-fifth of a grain, vaseline one ounce) was, under chloroform, freely pushed between the upper lids and the eyeballs; both were bound up with lint smeared over with ointment.

Feb. 24th.—Judging from the size of the pupils, the mother, though shown how to apply the ointment, must have done so very imperfectly. The ointment, under chloroform, was again applied as above.

27th.—Same application under chloroform. All swelling of eyelids and conjunctiva has subsided. Corneæ clear and smooth.

ON MEDICAL CERTIFICATES OF INSANITY.

BY T. N. BRUSHFIELD, M.D.,
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(Continued from p. 641.)

THE difficulty that medical men experience in framing a certificate is due to several causes, among which may be mentioned an imperfect knowledge of the nature and symptoms of the malady, and doubts as to which are the principal symptoms; but the prevailing difficulty appears rather to consist in the want of knowing the leading principles that should guide them in arranging and recording the "facts" they have ascertained.

Insanity is so protean in its character—no two cases being alike,—that all I can attempt to do is to indicate the principal division of symptoms that may require to be mentioned in the certificate, and to arrange them in the most simple and practical form. Undoubtedly the simplest form of division is into the three heads of the *appearance*, *speech*, and *conduct* of the patient; or, in Dr. Bucknill's words, "how he lives, what he says, and what he does." So that no point of importance might be omitted, I have elaborated this triple division into the following sets of symptoms. The arrangement is not a very philosophical one, but it will be found very convenient for the medical practitioner to bear in mind both in the examination of his patient and in the subsequent certificate.

Appearance.—Dress.

Speech.—Absence of speech, delusions, coherency or incoherency, memory, change in the higher emotions (speech), and other abnormalities.

Conduct.—Danger to others, danger to self, change in the higher emotions (action), propensities, general demeanour, and other abnormalities.

Appearance.—This does not, as a rule, receive its proper share of attention in certificates. It includes the general attitude of the patient as well as the facial aspect. The latter is often pathognomonic of some forms of the disease, and its description tends to strengthen the other recorded symptoms. For instance, what could be more expressive than "is of dull and heavy aspect" in a case of epileptic hebetude passing into dementia, or "facial expression of grief and dejection" in a patient suffering from acute melancholia. The wild and excited countenance in mania; the expression of pain and anxiety in some forms of melancholia; the dull, unintellectual visage, with averted eyes, in masturbation, &c., should all be mentioned. On the other hand, it is necessary to describe the kind of expression. Not only is this absent in the following certificate, but the whole of the symptoms taken collectively afford no proof of insanity, and yet the patient was suffering from acute hysterical mania: "Wildness and peculiar expression of countenance, numberless statements plausibly spoken as facts not having the slightest foundation in truth." Again, an entry like this: "She has the physiognomy of a patient with dementia," is of no value to anyone, since it does not describe the character of the peculiar physiognomy, and many sane persons would scarcely like to be declared insane on account of their demented look. Peculiarities of dress, especially when they show a marked change from the usual habit, should be recorded.

Absence of speech.—Some of the most difficult cases in which the medical man has to certify to insanity are those marked by obdurate silence, so that direct evidence is unobtainable from the patient's conversation. The symptom itself is an important one when allied with others. It may be owing to simple inability, as in some cases caused by sudden fright or shock; but in the majority of instances the patient can but will not converse. This may be owing to

general inertness, fatuity, hysteria, melancholia, simple perversity, &c. The certifier should endeavour to ascertain the cause, and, if successful, should state it. Unless the cause be known, a prognosis could only be guessed at. The following case was well investigated by the medical man, who was able to trace the silence to the existence of a delusion:—*Facts personal.* "The woman stares vacantly and stupidly at you when asked a question, but cannot be induced to speak, and appears to suffer from melancholia." The certificate was returned to be amended, when the following was added: "During the interview, which lasted a quarter of an hour, she continued to pace up and down the room, wringing her hands and groaning, but would reply to no question put to her." *Facts hearsay.* "Her husband informs me that for over a month his wife has rarely spoken, will not eat, appears quite indifferent to family and surroundings, and labours under the delusions that she has committed adultery, and that she has contracted venereal disease." This case was peculiar, inasmuch as the evidence of delusion rested entirely upon hearsay evidence. It was also a very instructive one, as showing how much a medical man can effect by making full inquiry into the whole history of the case, and stating the result of his investigation. The secondary testimony he obtained was of the greatest value in the subsequent treatment of the patient. The observations of the asylum medical staff corroborated those of the certifier. The patient had acute melancholia, from which she made a good recovery. She owned that during the period of her silence she felt frequently urged to commit suicide. The following certificate of one of this class contains a good example of motive-guessing when the patient would not speak:—"She has been before confined at Wandsworth on my medical certificate. She mopes about in a most melancholy way; will speak to none; will answer no questions; and obstinately refuses to take any food or do anything she is advised,—I imagine, as before, under a fear that she will be poisoned."

Delusions.—The larger number of cases of active insanity that fall under the notice of the medical men are characterised by delusions, and as they usually constitute the most important symptoms of the disease, I may be excused for devoting a little time to their consideration. The existence of a delusion not only at once demonstrates the patient to be insane, but simplifies the work of the medical practitioner in constructing his certificate. A well-marked delusion is of sufficient import to be detailed as one of the chief, if not *the* chief symptom exhibited by the patient, and which all the others relating to appearance and conduct will serve to corroborate. In a court of law a delusion is accepted as a proof of insanity. Many judges and eminent lawyers are apt to go a step beyond this, and to say that insanity cannot be proved without it, an affirmation that is not agreed to by psychologists, and if true would exclude a large number of persons who are now declared to be insane. To constitute an insane delusion the presence of cerebro-mental disease as a causation must be recognised. This at once excludes the false beliefs (sane delusions) which may pervade temporarily or permanently whole communities or nations.

Three classes of delusions as symptoms of insanity are recognised:—Hallucinations, illusions (delusions secondary), delusions proper (primary). The first two depend upon disorders of the special senses, but whereas hallucinations are subjective, illusions are objective. In hallucination there is false perception—a man fancies he sees or hears persons who have no real existence. In illusion there is a mistaken perception, a person, for instance, fancies the patterns of a wall paper to consist of live objects, another fancies he sees angels, where others notice clouds only. Both these conditions are perfectly consistent with acknowledged sanity, and so long as they are recognised by the individual who is the subject of them as sports of the imagination, he is considered as a sane person.[1] Immediately, however, they are believed in as realities that no reasoning will disturb, they become, in this secondary condition, evidences of insanity, and are considered as delusions. Another class of delusions are of primary origin, and consist of an endless variety of false beliefs and ideas, not traceable to affections of the special senses. The legal term for all these conditions is simply "delusion," and I strongly recommend that this word be used in a similar sense by medical men, and so prevent the occasional confusion of terms in the certificate, of which the following may be cited as an example in which the patient, although the subject of hallucinations, was considered to have no delusion. "He appears to have no one positive delusion, but his mind is in a very confused condition, speaks of persons being secreted in and under the bed."

Insane hallucinations are much more frequent than illusions. Auditory hallucinations are of common occurrence, and yet medical certificates rarely mention them. The importance of their presence cannot be overrated, and their recognition by the medical man enables him to point out the probably unfavourable prognosis, and also to warn and guard against violence on the part of the patient towards others, and which he is prone to commit under the guiding direction of the imaginary voice.

If a patient entertains specific delusions, their nature and character must be recorded to make the entry valid. The sentences "full of delusions," and "continued restlessness and talking, with delusions," without further description, destroy the value of the certificates. Their insane character is sometimes so manifest that it is often thought unnecessary to call them "delusions"; as, for example, in the following certificate, where the first-named had the character of illusions and the latter of hallucinations. "She informs me that for several months past she has been accustomed to converse with birds, who frequently bring messages to her, and whose language she understands quite as well as she does mine; that she broke a pane of glass the other day for mischief; that the Almighty frequently reveals Himself to her in the shape of a dove, and that she is constantly hearing the voices of her mother and son conversing with her outside the door." But where their insane nature is not so apparent, and especially if they are possible truths, then it becomes a positive necessity to state definitely that they are "delusions," and indeed it is the more advisable plan to make this the invariable rule. A difficulty sometimes occurs where a medical man is assured that certain statements are delusions, and yet he is of opinion they are possible truths. If he is satisfied in other ways of the existence of insanity, it would be better for him to add, "I am informed these are delusions." I am not certain whether it would not be the wiser plan to add the name of the informant. In the following two examples the certificates were returned to the medical men to be amended, the subsequent additions proving the insane character of the patients' statements being added in each:—"States that his wife wants to poison him, and is following him about for that purpose"; addition, "this being a delusion." "Says that her daughter has been done away with—that last night she heard her screams whilst she was being murdered"; addition, "which statements are delusions." The imaginary ideas are sometimes reported by medical men as though they were absolute truths, as in this example: "Has written 'in his sleep' a large scroll, which is to make him immensely rich; he presents it to Lord Beaconsfield to-morrow; it will insure him the title of prince or emperor. Holds communion with spirits. He is to be the emperor over all nations." If these entries had been qualified—the first, for instance, in this form, "He informs me he has written in his sleep, &c.," and had added, "All these statements being delusions," the certificate would have been a very good and strong one.

A leading feature of a delusion is its remarkable persistency, in this respect contrasting strongly with the evanescent and variable character of the incoherent statements made in chronic insanity, or some of the extravagances uttered in general paralysis. That one is mistaken for the other, the two following examples will show:—"She is incoherently raving, and under the delusion that the woman next her is her sister." The case was one of acute mania, and the so-called delusion appeared to be an incoherent expression that was probably forgotten a few minutes afterwards. "The patient wants his legs cut off, ground, and cooked for breakfast—says that human flesh is a great improvement to his food." This case was one of confirmed general paralysis, and exhibited all the delusions of grandeur, &c., and exalted ideas so common in that disease. For instance, he declared his bones were made of diamonds, that he was strong enough to lift twenty tons, &c. The statement contained in the certificate was one of those extravagances uttered by general paralytics, but it was non-persistent, and in this differed from an ordinary delusion.

I append a few extracts from certificates in illustration of insane hallucinations, illusions, and delusions proper,

[1] The whole of Chapter 2 in Brierre de Boismont's work on Hallucinations is devoted to "Hallucinations co-existing with Sanity," and which contains a large number of examples. See also Dr. Blandford's article on "Auditory Hallucinations" in the Journal of Mental Science, vol. xix., p. 567 et seq. There appears reason to believe that all the instances mentioned were accompanied by a varying amount of cerebral disorder, not, however, amounting to insanity.

with a few short comments on each:—"Labouring under delusions—(1) when she has been walking the streets and looking at people they seem to change to the likeness of others; (2) although told that I am the medical officer she is under the impression that I am a person named George Grant, and continually asks the question 'Are you not George Grant'?" A good example of illusions of sight. "He says that he can see the root of all evil sitting on a beam in the ward." An unusual form of hallucination of sight. "I find him strange and incoherent in his language. He told me he had been in a trance forty days, and that he cannot go to his work because he sees dogs which terrify him." Hallucination of sight stated as if an actual truth. "Whilst speaking to him he fancied there were mice running about the room, that he heard burglars getting into the house, that different people whom he knew were coming through the door of the room, though it was shut, and he would stand up to salute them." A well-marked case of hallucinations of sight and hearing. "Talks in a hesitating and rambling manner. Says his head has been cut off, and stuffed with snakes; that his heart and liver have been taken out by men, washed, and put back again." This patient told me he could feel the adders moving about in his head; it appeared to me to partake more of the character of an illusion connected with the sense of touch than that of a delusion proper, under which latter term Dr. Blandford (p. 15) classed a somewhat similar case. The man was also the subject of auditory hallucinations. A good illustrative example of varieties of delusion in the same individual. "Does not believe her children are hers, and fails to recognise them when brought before her. Sees black men (natives) with white caps on at the foot of the bed, who disappear when she addresses them." An intermittent form of hallucination of sight, very uncommon. "She has a delusion that some one is continually, or almost continually, shooting poison into her body." An illustration of illusion of the sense of touch. On admission she confirmed the statement contained in the certificate—namely, the assertion that poison was shot into her by various things, such as a gun, telescope, &c., and that it felt like an electric shock. "Is incoherent and irrational in her language, and suffers from delusions; believes that her food is poisoned, and that she is informed of this by invisible means." A fairly common form of illusion of taste. "Her manner is very excited, and she has various delusions, one of which is that she has committed some heinous offence which is an unpardonable sin." A common delusion in some forms of melancholia. "He is under the delusion that he has lost all his bowels and inside, and is perfectly void of strength. Vacant countenance and expression. He says if he attempts to walk the wind gets into his legs, and he is blown away." "Very melancholy; fancies that he has starved his daughter, and that he is to be punished by being starved himself. Believes that his daughter is very ill in consequence of his treatment. She is in fact quite well and well off, and married, as he says, to a 'good fellow,' who is well able, and does take care of her." A good instance of an occasional form of suicidal melancholia, when the patient attempts to commit suicide, so as to avoid the consequence of an imaginary calamity. "That she is beset with delusions respecting the police having combined to persecute and annoy her. That wherever she goes the constables and detectives follow her. That they have taken lodgings in her house with similar views as regards her. That a constable inspecting a dog licence is a detective in disguise. That ordinary lodgers in the house are really police, &c. Her manner, aspect, and features show great nervous excitement, and she is exceedingly garrulous, incoherent, and discursive in her talk." This is a well-marked type of a class of cases of tolerably frequent occurrence, where the patient believes she is the victim of general persecution—that everyone is in a conspiracy against her. During her asylum residence she declared that all the staff, as well as the patients, were in league against her. Said they wanted to poison her food, &c. It appeared very odd for her husband to declare she was quite sane, and that her statements were true.

"Looks wild, talks incoherently, and told me he was in Deptford, although in Bethlem Hospital, and that Her Majesty has left him four millions of money, and also a publicanhas left him four millions of money, which is untrue." These grandiose delusions are commonly present in general paralysis, and are usually associated with exaggerated and exalted ideas of all kinds. In the instance just quoted the patient had all the ordinary symptoms of the disease. Taken by themselves these delusions are not pathognomonic of general paralysis, as the following certificate will show they may be present in other forms of insanity. The date of the certificate is Sept. 28th, 1860, and the patient, aged sixty-six, weak-minded from birth, is yet a hearty, healthy man, whereas, had he been a general paralytic, he would probably have died within two or three years after his admission. "He is in a morbidly-excited state, incoherent and threatening, fancying himself possessed of great wealth, legal knowledge, and the strength to vanquish any number of soldiers or constables, using threats of personal violence to his sister and neighbours." Loss of personal identity is a frequent symptom, of which the following are fair examples:—"At times he is perfectly silent, and will not answer, at others he is excitable, and says he is Jesus Christ." "Violent, incoherent, states that he is the Emperor Napoleon." The next two contain the whole of the entries in their original form; the first is obscure, the second invalid; both were returned to be amended:—"Irrational and sullen, and says and does the most irrational things, for which he can give no reason." "Very violent, and called me Dr. Kenealy; also saw objects in the fire."

Coherency and Incoherency.—The patient may be perfectly coherent and yet be the subject of delusions; these are the cases to which Locke's remark applies—viz., "Having joined together some ideas very wrongly, they mistake them for truths, and they err as men do that argue right from wrong principles." Swearing, violent, abusive, and obscene language may be as fairly coherent in the insane as it is in the sane when uttered under circumstances of great rage. In certificates these points should be stated for what they are worth, without the necessity of including them under the term of incoherence. Again, coherency of language is undisturbed in the simplest form of melancholia unattended with delusion, and also in cases of emotional insanity. Incoherency characterises two opposite forms of insanity—acute mania and dementia, but the causes are different in the two. In the former the flow of ideas is too rapid, in the latter there is direct failure of the mental powers. I will give quotations illustrating each condition. The first two were taken from certificates of the same patient (the subject of acute mania) by two medical men. 1st. "She is in a state of violent mania, rushing about, shouting, hallooing; threw her arms round my neck, and called me her saviour; that I was holy and pure, then she fell on her knees and began praying." 2nd. "She is in a state of raving mania, pacing round the ward in her chemise and raving incoherently." The next was a case of subacute mania passing into chronic insanity. "She talked incoherently and incessantly. She appears unable to talk about one subject, but branches off into a variety, and mixes one thing up with another." The last was a case of dementia. "There is evidence of confirmed imbecility both in appearance and speech. When accosted he is bewildered or confused, and answers questions at random or incoherently, and with hesitation. There is failure of memory and appreciation of common facts." Respecting the use of the term imbecility in this instance, it is better to restrict it to cases of congenital deficiency or arrest of proper brain development in early life, and to use the word dementia when the patient has once had his brain fairly developed, but its powers are in a state of decay.

It is often of the greatest use in certificates to mention the manner in which the patient replies to questions, giving an illustration where possible—whether he answers them coherently, incoherently, irrelevantly (as when his reply would have been a proper one to a totally different question), irrationally, by repeating the same word or phrase whatever the nature of the question, by repeating the last words of the question asked—like an echo.

Memory.—There may be a defect of the memory of past events only, or of recent events only, or of both. The memory of recent occurrences gradually fails as age approaches, and is more obvious in ordinary senile dementia, where the persons often appear to live, as it were, in a past world. In confirmed dementia following chronic mania or general paralysis, the failure is often very marked. The degree of defect or of failure should if possible be noted. In the following case the failure was not complete at the time of the patient's reception into the asylum, but became so soon afterwards: "She has an irritability of the skin common amongst insane persons, picking at and rubbing her skin. She has loss of memory, mutters incoherently, and

says she does not know what she says when she speaks." The allusion to the condition of the skin is noteworthy, as being on a par with the belief that existed a few years since as to the peculiar odour of the insane. I do not think that insane persons are more liable than sane ones of similar age to this irritability of the skin. When, however, it does exist, it is often made more manifest in the insane by their habit of picking it.

(To be continued.)

ON

VERSION, FORCEPS, AND THE EXPECTANT PLAN IN THE TREATMENT OF CONTRACTED PELVIS.

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THE following remarks are intended to apply to the three most common forms of contracted pelvis only—viz., the flattened non-rachitic pelvis, the flattened rachitic pelvis, and pelvis equally contracted in all the principal diameters.

It is evident that the plans of treatment to be discussed are only admissible where the contraction does not exceed limits within which, under favourable circumstances, it is possible to deliver a living child through the natural passages. In most of these cases the appropriate treatment would be the induction of premature labour between the thirty-second and thirty-fourth week. But the physician may be first summoned after the end of gestation has been reached, or he may, at an earlier period, have decided against the induction of premature labour. At full term, supposing the head to present, the latter, at the beginning of labour, is prevented by the pelvic narrowing from entering the brim of the pelvis, and is usually freely movable. The conduct of the first stage of labour should be directed to preparing the way for the subsequent delivery of the child. To this end every pains should be taken to prevent rupture of the membranes before the cervical dilatation has become complete. The patient should be cautioned against restless movements in bed, and from leaning down during the pains. Examinations per vaginam should be made with great care, and should be avoided, except when absolutely necessary. The largest-sized Barnes's dilator, moderately distended with fluid, placed in the vagina to exert counter-pressure upon the cervix, is at times of use where the membranes have a tendency to protrude in the form of a narrow cylinder. Attention should likewise be directed to faulty positions and presentations of the child's head. Should these be dependent upon a pendulous abdomen, the fundus of the uterus should be elevated, and the normal relations of the uterine axis maintained by a suitably-adjusted bandage. Excessive lateral obliquity may be corrected by placing the patient upon the opposite side. Should transverse narrowing require a deep descent of the occiput, this can be furthered by placing the woman upon the side to which the occiput is directed. When, on the other hand, it is desirable to promote the dip of the forehead, the patient should be made to lie upon the side of the face. The reason of this is obvious, as, when the breech falls to a given side, the cephalic pole has a tendency to move in the opposite direction.

The right use of position as a corrective force depends upon the degree of accuracy with which the character of the pelvic deformity is estimated, and upon a proper appreciation of the mechanism appropriate to the ascertained deformity. When the sagittal suture looks forward toward the symphysis pubis, so that the posterior parietal bone becomes the presenting part, a firm compress above the pubis may be advantageously employed to press the head backward, and approximate the sagittal suture to the median line.

The pains, when weak and inefficient, should be strengthened by the warm vaginal douche; when the source of exaggerated suffering, they should be mitigated by morphia, by rectal injections of chloral, or by the administration of an anæsthetic.

Should, by good fortune, the rupture of the membranes be postponed until after completion of cervical dilatation, one of two contingencies may follow:—1st. The disproportion between the head and the pelvis may prove to be slight, so that a considerable segment of the cranial vault may be felt below the brim. Then, provided the head enters the pelvis in conformity with the mechanical laws dictated by the character of the pelvic deformity, the expulsion of the child may be left to the natural uterine forces. 2nd. No engagement may take place, the head continuing freely movable at the brim. Under such circumstances the disproportion may be assumed to be considerable. The physician has therefore to ask himself whether he shall await the action of the pains in the expectation that the head will gradually adapt itself to the pelvis, or whether he shall at once proceed to perform version, and drag the child rapidly through the straitened diameters. Forceps, as a means of delivery before fixation of the head, should be discarded, not because they cannot be employed with success, but because their use, even in the most skilful hands, is extra hazardous.

The question of waiting, or proceeding at once to version, is one that will always be decided largely by the individual experiences of the accoucheur. It is, however, vain to deduce rules of practice from the conduct of those who have enjoyed exceptional opportunities, and who usually have developed exceptional skill in some one special direction. It is to be remembered that in contracted pelves, in case the pains prove inadequate to overcome the obstacle to delivery, the alternatives in head-presentations are forceps and perforation. But there are very few experienced operators who have not a more or less personal predilection for either forceps or version, and this unconscious bias exercises necessarily, to some extent, a determining influence upon their choice. It is well known that there is hardly any subject which has been the source of so much heated controversy as the one at present under discussion. For the profession at large, however, there is little to be gained from the spirit of partisanship. The general practitioner not only requires instruction in the special advantages possessed by each measure, but needs to have presented to his attention parallel statements of the dangers and difficulties from which neither procedure is free.

In considering the application of version to the treatment of contracted pelves, it is well to state in advance certain points which are rarely alluded to, probably because they are matters of tacit agreement between the contending parties, to whose disputes we mainly owe our present knowledge in relation to the subject. The first of these is that the intent of the operation is to save the life of the child. In the case, therefore, of a dead child, or of one in which the heart sounds have notably begun to fail, version affords no advantage over perforation. For the same reason the conditions must be such as to hold out a reasonable hope of rapid delivering of the child's head without the infliction of necessarily fatal lesions. Now, there does not appear to be any well-authenticated case of the delivery by version of a full-time living child through a flattened pelvis measuring less than two inches and three-quarters in the conjugate diameter. But even with three or three inches and a quarter, the result will still depend upon the length of the transverse diameter. Thus, in extreme degrees of the justo-minor pelvis, with the reduction of nearly an inch in all the diameters, the difficulties of delivering the after-coming head, even with the aid of the perforator and the cephalotribe, are wellnigh insurmountable. Again, the contraction should be limited to the pelvic brim, for where the contraction is continuous or progressively increases toward the outlet the fate of the child is not even doubtful.

The other point of importance is that with three inches and a half and upward in the conjugate no interference in the rule is called for. Since it has become the custom to measure pelves with accuracy, the profession has learned that these moderate degrees of deformity exercise their influence not so much in a mechanical way as in the modifying effects they produce upon labour. A large proportion of the cases terminate spontaneously. If the pains fail prematurely, the conditions are generally such as to make it an easy matter to deliver with forceps. Difficulties only arise where the head is unusually large and incompressible, or in faulty positions, such as the anterior dip of the head in justo-minor pelvis, and the presentation of the posterior parietal bone in the flattened varieties.

Thus version is indicated in contracted pelvis only when the child's heart beats with nearly unimpaired vigour, and in pelves measuring between two and three-quarter and three and a half inches antero-posteriorly, with the contraction limited to the brim, and with sufficient amplitude in the transverse diameter.

The advantages of version in contracted pelvis grow out of the unquestioned fact that the after-coming head passes more readily the contracted brim than the normal head-first presentation. This superior facility is attributable to the entry of the head by its smaller bimastoid diameter. At the same time, the fronto-occipital descends in the transverse diameter of the pelvis. The pressure of the conjugate is encountered by the bitemporal diameter of the child's head, which measures half an inch less than the biparietal. Tractions upon the trunk of the child bring to bear simultaneously pressure upon the head from many points in the pelvic walls. As a result, bilateral flattening is effected, and a deep groove, usually near the coronal suture, is produced in many cases upon the posterior cranial surface by the pressure of the projecting promontory. The bulk of the head is still further diminished by an over-riding of the bones at the sagittal suture, and, where the transverse diameter is insufficient, by the crowding of the occipital beneath the parietal bone. A reduction of the cranial contents is brought about by the retreat of a considerable portion of the cerebro-spinal fluid into the spinal canal. All these changes are induced rapidly, and are not dependent upon the activity and strength of uterine pains.

The method of performing version and extraction in contracted pelvis is, with few modifications, the same as in pelvis of normal size. In contracted pelvis great care requires to be taken lest the arms become reflected upward to the sides of the child's head, or crossed upon the neck. To avoid this difficulty it is desirable to introduce the hand over the abdomen of the child, and bring down the arms before the engagement of the shoulders. In delivering the head, traction may be made upon the lower extremities and shoulders, according to the method of Kiwisch, or traction may be made with one hand upon the shoulders, while two fingers of the other are inserted into the child's mouth. Provided by either of these methods the relation of the head to the shoulders is such that no twisting of the neck takes place, the amount of force that can be employed without producing fatal lesions is often something astounding. Thus Rokitansky, experimenting with the bodies of still-born infants, found the utmost strength put forth by two men upon the trunk insufficient to cause rupture of the vertebral ligaments and separation of the articulations. It is usual, however, to combine pressure from above, exercised by a skilled assistant upon the head through the abdominal walls, with tractions from below. Schroeder[1] states that this practice is coeval with podalic version. It was known to Celsus, and recommended by Ambrose Paré. It has found warm advocates in Pugh, Wigand, Martin, Krestellar, and, in this country, in Tayler and Godell. Both the latter gentlemen have made valuable suggestions regarding the technical management of difficult cases, which are well worthy of special mention. Dr. Tayler at first draws the body directly backward, while the head is forced by supra-pubic pressure downward and backward into the pelvis. So soon, however, as the head begins to advance, he raises the body of the child, and directs pressure upon the head to be made downward and forward in the axis of the outlet. In case of failure or delay he has sometimes succeeded by intentionally directing the back of the child to the sacrum, and then causing the occiput of the child to be pressed downward and backward into the nearest sacro-iliac space, with the face looking upward, while traction is made in the axis of the outlet. Dr. Goodell, after first drawing in the direction of the outlet, with the assistant pushing downward and backward, reverses the direction, and sweeps the child's body backward upon the coccyx, the neck likewise being forced downward and backward into the hollow of the sacrum with all one's powers. Where the projection of the promontory is not very marked, he likewise recommends, as something of assistance, a pump-handle movement, the range of oscillation extending from the axis of the outlet anteriorly to very firm pressure on the coccyx posteriorly.

(To be concluded.)

[1] Handbuch der Geb., Aug. 6th, s. 367.

TREATMENT OF NÆVUS.

By BENJAMIN WALKER, L.R.C.P.

THE following two cases of nævus are thought worthy of record, being interesting from their situation, and from the difficulty of treating them by the old method of ligature or suture, which were fairly tried and failed, and from the facility with which they were cured, one by the sodium ethylate of Dr. Richardson, the other by the actual cautery.

Laura L——, aged thirteen months. Nævus over right parotid gland, in size from half-a-crown to a crown piece; skin has a pinkish-blue mottled appearance, and is involved in about one-half its extent. The growth is prominent, and increases in size on crying, it is also gradually getting larger. On August 27th, 1878, it was operated on by wire ligature, previously transfixing with needles, and again on Sept. 9th and Nov. 6th, but without arresting the progress of the growth. On Nov. 12th sodium ethylate (of one-half saturation) was painted over it, and the application repeated three times in the next fortnight, and five times more at intervals of a month or two, till on August 3rd, 1879, the nævus was practically cured, the only marks perceptible being from the surgical interference (the entrance and exit points of the needles); had the ethylate been used from the first there would have been none, and its application is attended by little or no pain. To Dr. Richardson we are indebted for a most valuable addition to our armamentarium.

William B——, aged five months, a child at the breast, was brought to me on August 28th, 1878, with a nævus of the upper lip, involving the mucous membrane, and extending to the gum over the site of the incisors; skin not involved. It gave to the child a pouting and prominent upper lip, and was increasing in size, so as to interfere with prehensile power at the breast, and the child was beginning to fail in its nourishment. On August 28th it was operated on by transfixion and ligature, and subsequently by sutures on Sept. 9th and Dec. 17th, but it was most difficult to secure the whole by either method, and the nævus rapidly increased in size. On Dec. 25th the child was placed under chloroform, and the actual cautery applied pretty deeply into the growth in two or three places. Slough separated in a few days, and has left a perfect lip without any disfigurement.

Spondon.

CASE OF POISONING BY OXALIC ACID.

By CHARLES FAIRFAX NURSEY, L.R.C.P. Ed. &c.

ON the 7th January last I was called to see a woman, aged twenty-eight years, who had taken poison. I obtained the following particulars:—The patient had been drinking very heavily since Christmas-day, and to such an extent that on the day she took the poison she was bordering on delirium tremens. She left home on the morning of Jan. 7th and purchased in the town exactly half an ounce of oxalic acid, which, on her return at 9.30 A.M., she dissolved in warm water and swallowed. She vomited immediately and went to bed, where she remained vomiting in much agony until she was discovered by a neighbour at 1.15 P.M., lying on her side nearly dead. Fortunately the neighbour recognised her dangerous state, and obtained from her that she had taken oxalic acid. So he cleverly gave her carbonate of magnesia in water until my arrival, which was at 1.30 P.M., exactly four hours after swallowing the poison. She was then almost in a state of collapse; little or no pulse; just able to say that her throat and stomach were on fire. There was constant vomiting, tinged with blood; and cramps and numbness, with slight convulsive movements, in the limbs. The mucous membrane of the mouth and throat was entirely covered with a white coating, due to the corrosive action of the poison. As the patient could, and was only too willing to swallow, I continued the use of the carbonate of magnesia solution until she had consumed three or more pints of it, after which I gave her nothing but lime-water freely occasionally mixed with milk. Vomiting continued, and reaction set in. The body towards 6 P.M. became warm. Pulse returned, with slight colour in the cheeks. The epigastric and abdominal pain was severe, but the cramps slowly subsided. At 8.30 P.M. I gave up the lime-water,

and ordered ice to be sucked constantly, with an ounce of compound tragacanth mixture every hour in milk. In the morning I found my patient doing well, and, with the usual management in such cases, she was able in three or four days to come downstairs. During the treatment of the case I had the valuable assistance of my friend Dr. Dixon of Sunderland.

Remarks.—Considering the empty and inflamed state of the patient's stomach—the result of hard drinking—when she took more than a poisonous dose of the drug, and the length of time which elapsed before an antidote was given, it seems strange that she did not die long before any treatment was adopted.

Sunderland.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

TRANSPLANTATION OF TESTICLE FROM GROIN TO SCROTUM.

(Under the care of Mr. WOOD.)

GEORGE D——, aged thirteen, was admitted on the 8th February last. When quite young a tumour was noticed in his right groin, which always disappeared when he was lying down, but reappeared when he walked about. He had worn a truss as long as he could remember. By this means he had always prevented the descent of the tumour till ten days ago, when it slipped past the truss, and could not be returned. Four days after, he experienced great pain in the right groin, the tumour increasing rapidly in size, with sickness and constipation.

On admission, there was found at the right external ring a solid tumour, irreducible, excessively painful, and with no impulse on coughing. There was absence of the right testicle from the scrotum. The diagnosis was—an inflamed undescended testicle. An ice-bag was applied, followed in a week's time by diminution of the testicle to its original size; it could not, however, be returned to the abdomen.

On Feb. 28th Mr. Wood exposed the testicle, which was found to be somewhat smaller than its fellow, by a vertical incision over the external ring. The cavity of the tunica vaginalis could not be found, and seemed to have been obliterated. The testicle, especially at its upper border, was attached to the pillars of the ring by very firm adhesions, which were with some difficulty broken down. Mr. Wood then freed the cord for about an inch and a half, and though he found it considerably shortened, by making traction he was able to bring the testicle down about an inch. He then everted the scrotum, stitched the testicle by catgut to the everted part, put a small drainage-tube in, sewed up the opening, and applied a pad firmly above the testicle, the whole operation being performed antiseptically.

The patient slept well on the night of the operation. Next day the testicle, though slightly retracted, was still well out of the external ring. There was no pain complained of, the wound united by primary adhesion, and the drainage-tube was removed on March 10th. The temperature was never over 99°. On March 15th the patient was discharged, wearing a water-pad truss, which was specially constructed to keep the testicle in the scrotum.

For these notes we are indebted to Mr. W. S. Miller, M.R.C.S., surgical registrar.

SAMARITAN FREE HOSPITAL.

CYSTIC SARCOMA OF BREAST; EXTIRPATION; NEUBER'S BONE DRAINAGE-TUBE; GOOD RESULT; REMARKS.

(Under the care of Dr. GEORGE GRANVILLE BANTOCK.)

A. D——, aged thirty-seven, single, was admitted on Nov. 26th, 1879. She had a cystic tumour of the right breast, as large as a turkey's egg, without any glandular enlargement in the axilla. The tumour affected the outer half of the mamma. She had also an abdominal tumour, which presented all the characters of an uterine fibroid. Its connexions were such as to forbid any surgical interference. The former, however, called for early operation, as the skin over the most prominent part was becoming very thin, and threatened early rupture. Menstruation came on two days after her admission, and it was not till Dec. 17th that she was ready for operation.

The tumour when first observed, about two years and a half before, was as large as a pigeon's egg, and was situated near the outer edge of the breast. It was then tender to the touch, but not painful. It had increased most rapidly during the last six months.

On Dec. 17th the tumour was removed, with the whole mamma, by two elliptical transverse incisions embracing the nipple. Three arteries were tied with silkworm gut, and the ends of the ligatures were cut off short. Compression forceps sufficed for other bleeding points. The wound was closed in its inner half (three inches) by a continuous suture, and in its outer by interrupted sutures, of silkworm gut. Before the latter were tied a bone drainage-tube nearly three inches long, about a quarter of an inch bore, and about half a line thick, prepared according to Neuber's instructions, was inserted. The operation was performed under phenol spray, but the wound was not washed out. The outer end of the tube was trimmed level with the skin, and, instead of the small safety-pin recommended by Neuber, it was secured by means of a piece of silkworm gut passed through it transversely, with ends two inches long. Next the wound, and over the end of the tube, were placed fourfold pledgets of thymol gauze, then alternate layers of thymol and carbolic gauze to the extent of probably twenty folds, and they were secured by a many-tailed gauze-bandage. Over this a thick pad of salicylic wool was placed, then Lister's eight-fold dressing, and again a many-tailed bandage, with shoulder-straps, also of gauze. As much discharge was not anticipated, it was thought unnecessary to follow Neuber to the letter in the matter of the dressing.

On the 18th, under the spray, the dressings were removed. There was very little discharge, and the wound looked as well as possible. The dressings were reapplied in the same order, with the exception of omitting the first bandage. Menstruation reappeared.

On the 24th the wound was exposed without the spray, and seen to be united throughout. There was not a trace of redness; only the gauze over the tube's mouth was soiled. The tube was quite fixed, flattened, and the presenting portion was dry and otherwise unchanged. The whole of the continuous suture, and two of the others, were removed. Vaginal discharge was very free.

On the 27th, with a view of ascertaining what was becoming of the tube, the wound was again exposed. The gauze was soiled to about the size of a shilling, just going through four folds. Another suture was removed, leaving the one next the opening. All the white and unchanged portion of the tube was cut away. Beyond this granulation tissue had invaded it. *In fact it had become organised.* The patient was allowed out of bed, although the uterine discharge had not ceased.

On the 30th the last suture was removed. No trace of bone could be seen, but a flattened body could be felt occupying the site of the tube, and it was evident that instead of melting down and coming away in the discharge it had become organised in its entirety.

On January 3rd there only remained a small granulating surface, less than the diameter of the tube. By the 9th it was quite dry, and the patient left the hospital on the 13th.

Remarks by Dr. BANTOCK.—In this country attention was first publicly called to the bone drainage tube by Mr. MacCormac in an address delivered before a meeting of one of the Metropolitan Counties Branches of the British Medical Association, held at St. Thomas's Hospital on Dec. 3rd last. Mr. Krohne had already shown me some of these tubes which he had made according to Neuber's directions, and on Mr. MacCormac's suggestion. I was then waiting for the time when my patient would be ready for operation, and I made up my mind to try the new tube so highly spoken of by Neuber, who is supported by Esmarch. Neuber cannot be said to have been in a hurry to proclaim his invention, for

it was not till he had observed thirty-six cases to their termination that he published his paper.

The following represents his general conclusions. He says that when a bone tube is put into a fresh wound in a good subject, no particular change is observable within the first twenty-four hours, but soon after that time the outer surface loses its smoothness and presents a worm-eaten appearance, and the thickness of the tube seems to diminish gradually under a slow melting process. In this way its solidity is so much impaired that by the fourth or fifth day it collapses under the pressure to which it is subjected. After six or seven days it is reduced to a pulpy gelatinous mass of more or less cylindrical form, and by the tenth day all trace of the tube has disappeared, except the part which is not exposed to the action of the tissues, and which is usually to be found loose in the dressings about this period. The rapidity of absorption varies in different individuals, depending on constitutional conditions and the state of the wound. In one case of amputation of the leg (to which he specially calls attention) in a patient much weakened by long illness, and the subject of albuminuria, the tube was not absorbed in fifteen days, although the wound had healed almost throughout by first intention. In another case of a more vigorous patient, after amputation of a large part of the scrotum, no trace of the tube could be found after the tenth day. He observed that the tube disappeared quicker in cases attended with discharge than in those without. He especially claims for his method that fewer dressings are required than with the ordinary india-rubber drain, and that it produces no irritation.

As far as my case goes I think I must admit both these claims. Had it not been for my anxiety to see how the tube was behaving, instead of exposing the wound on the seventh day, I might have left it undisturbed for a whole fortnight. So perfect has the healing process been, that the skin slips freely over the underlying tissues, and the tube moves with it. This indicates the only point of difference—viz., that after a lapse of twenty-six days the tube can still be felt, apparently of its original size, but flattened. Is it an unmixed gain that it has become organised instead of being absorbed or coming away in the discharge after having served its purpose? Still, on the whole, the result is very satisfactory. The lips of the wound at the end of twenty-four hours appeared to be perfectly glued together. Throughout the whole course of the treatment the patient felt nothing of her breast wound, and I am inclined to attribute the elevation of temperature on the second and third days, when it ranged between 99·6° and 100·4°, to the disturbance in the fibroid uterus. One of her usual periods had only just ceased a few days before the operation, and the same night the discharge returned, attended with considerable pain, especially for the first three or four days. All this time, however, the pulse was unaffected. In length of treatment this case does not compare favourably with the last case of the same kind, in which the tube was removed on the fifth day, and the healing process was quite complete by the eighth day. But of the two subjects the latter was certainly the more favourable for operation.

In the table of cases Dr. Neuber gives three cases of ovariotomy, of which two died (of peritonitis), and one recovered. The date of the first dressing in this case was the twelfth day. I do not hesitate to say at once that in this operation the bone-tube is wholly unsuitable, and that to use it is only to court disaster. In this case the principle is entirely different, and the peculiarities of the bone-tube are at once seen to defeat the object in view.

Dr. Bantock adds:—Since the above was written I have again used Neuber's tube—viz., in a case of irreducible hernia of omentum through the femoral ring, in which I unwittingly performed the radical operation for hernia introduced by Professor Socin of Bale. The case was rather obscure, as at no time while she was under my observation had any intestine descended. On the 17th inst. I cut down upon the swelling, and at once saw its nature. Completely isolating the sac, I then opened it, broke down an adhesion of the omentum, and tried to return it. As it resisted reasonable efforts I applied a ligature close to the ring, and cut away the omental mass. The stump at once receded. I then put a ligature around the neck of the sac, and cut it off. Both these ligatures were of silkworm gut, and the ends were cut off short. A small bone-drain was put in, and the wound closed by six sutures. On the 19th, the blood, which had escaped from the tube, had dried up in the gauze dressing, and the wound was quite dry throughout. On the 22nd, there was only a slight stain on the gauze just over the tube's mouth, and I cut away the end of the tube as close as possible, for this purpose pressing back the skin, so that the edges of the skin overlapped the tube. On the 24th, the skin had come together and united, and the healing was thus complete. On this day I removed the sutures. In this case also the tube was found firmly fixed at the first dressing, and its organisation was even then assured. It is still to be felt under the skin. There is reason to hope that this operation will prove a radical cure, as the ring was not stretched, and the ligatured neck will form a firm and resisting plug.

LEEDS GENERAL INFIRMARY.

CASES UNDER THE CARE OF MR. OGLESBY.

FOR the following notes we are indebted to Mr. Porritt, assistant house-surgeon:—

CASE 1. *Toxic effects after using strong solution of atropine.*—John A——, aged seventy, was admitted on the 6th of December, 1879, for the extraction of a cataract. He was a builder, and a strong, healthy man, who did not seem to be more than sixty years of age. A solution of atropine, containing two grains of atropine to the ounce, was at once ordered for the eye twice a day, and nothing noteworthy was observed after its use. On Dec. 9th the cataract was extracted by Graefe's method. There was a friable cornea, but the operation was completed successfully, with, however, the escape of vitreous before the removal of the speculum preventing the removal of soft matter by the scoop. Solution of atropine (four grains to the ounce) was dropped into the eye, and the pads applied.

For three days after the operation the patient complained of no pain, but on the third day, Dec. 12th, the pupil was found filled with soft matter. There were iritis and redness of the globe of the third degree. The artificial leech was applied to the temple, and one ounce of blood taken away, and six drops of a solution of atropine, containing ten grains to the ounce, were ordered to be placed in the eye every third hour.

On the 16th the night nurse reported that he had passed a restless night. He complained that his mouth and throat were dry. The sound pupil was widely dilated, and no skin eruption was observed. There was a vacant expression in the face, and he was slightly delirious, but answered questions rationally. The atropine was at once discontinued, and two ounces of the compound senna mixture were administered. At 8 P.M. the delirium had increased; he was irritable and more restless. There was paralysis of the lower extremities, and on attempting to walk he fell forwards, and had to be supported by the nurse. The bowels having been well opened, an eighth of a grain of morphia was injected subcutaneously, after which the patient fell into a sleep which lasted until morning, when he awoke sensible and well.

In this case the solution of atropine was placed in the eye eight times, the quantity used being equivalent to one grain of the alkaloid. This strong solution of atropine has been used on many occasions without any untoward effects.

CASE 2. *Fatal toxic symptoms after using a weak solution of atropine.*—William J——, aged fifty-nine, of Hunslet, had an iridectomy performed on the left eye twelve years ago, as a preliminary to the extraction of a cataract. In the interval between the two operations he attended as an outpatient, and was ordered a solution of atropine containing two grains to the ounce. After he had placed drops of the solution in the eye three times, he felt giddy and sick. The sound pupil was largely dilated; violent vomiting came on; the pulse became feeble and small, and the extremities cold. There were dimness of sight and vertigo, but no delirium, and on visiting him he was found in a state of complete collapse. He was wrapped up in hot blankets, and stimulants were administered, but he did not recover from the effects of the atropine until three days after the symptoms first appeared.

Out of the very large number of cases which have come under the care of Mr. Oglesby where it was necessary to use a solution of atropine for ophthalmic purposes, the above-named cases are the only ones in which symptoms of poisoning occurred.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Acute Rheumatism with Multiple Embolisms.—Amputation in advanced disease of the Hip-joint.—Secondary Hæmorrhage from the Stump of the Thigh, with Calcareous Degeneration of the Vessels.

THE ordinary meeting of this Society was held on April 23rd, Dr. E. H. Greenhow, F.R.S., President, in the chair. A remarkable case of multiple embolisms from endocarditis in acute rheumatism was read by Dr. Southey. A case of advanced hip-disease, for which amputation was performed through the joint, was communicated by Dr. Stokes, of Dublin. Davy's lever was employed to control hæmorrhage, and the case was successful. Another contribution of surgical interest was one by Mr. Cripps, upon secondary hæmorrhage, due to extreme calcareous degeneration of the arteries of the lower limb.

Dr. SOUTHEY read notes of a case of Acute Rheumatism with Multiple Embolisms. The patient, a widow, aged fifty-six, of nervous temperament, came under Dr. Southey's care at St. Bartholomew's Hospital, on the eighth day of an attack of acute rheumatism. It was the seventh attack, and she had been treated previously at the hospital for the same disease. On admission, there was general hyperæsthesia, swelling, and tenderness in right parotid region, painful swelling of left hand and knee. In addition to an erythematous blush the skin presented ecchymotic and purpuric spots over trunk and limbs. Temperature 102·4°; pulse 120; respiration 36. The præcordial dulness was increased, and there was a systolic apex murmur (which had been noted three years previously); fulness and tenderness of abdomen, with evidence of splenic enlargement. She was given fifteen grains of salicylate of soda every four hours, which was discontinued after the fourth dose, owing to the supervention of delirium On the eighth day the highest temperature was 100°, lowest 99°; pulse 108; respiration 42. She was less rational; passed urine involuntarily; the parotid swelling had increased. On the ninth day the temperature was 99·2° to 100°; pulse 128; respiration 52. There was drooping of the left eyelid and less restlessness and pain. Death took place on the morning of the eleventh day, the patient becoming rather suddenly comatose twelve hours before. The post-mortem examination was made by Dr. Moore. No pus in the affected joints; patches of recent embolic softening met with in corpora striata, left cerebral hemisphere, and left lobe of cerebellum; spinal cord normal; right parotid gland congested, not suppurating; the mandibular articulation not diseased; ecchymosis in the larynx, and œdema of lungs. There was universal adhesion of the pericardium, a calcareous patch existing over the right auricle. The heart was large, and its cavities dilated. The most notable feature was the occurrence of numerous minute embolic areas studding the endocardium on both sides. The muscular substance was granular. Mitral orifice of large size; the valve fringed by vegetations. The liver and kidneys contained recent infarctions of variable size, and the intestines presented numerous ecchymotic spots. Dr. Southey considered the case to be one of acute rheumatism *plus* ulcerative endocarditis, with embolisms of skin leading to purpura (he believed embolism to be generally the source of "purpura rheumatica"). He had noticed this tendency of endocardial vegetations to break down and give rise to minute multiple embolisms in old ague cases, but he had never before seen so extensive an embolic affection of the heart-muscle itself. The condition of the nerve-centres suggested that capillary plugging is one of the causes of hyperpyrexia.

Dr. STOKES (of Dublin) read notes of a case of Amputation through the Hip-joint, in which Davy's method of preventing hæmorrhage had been satisfactorily employed. The patient, a tall, muscular man of forty years of age, a shoemaker and sexton by occupation, was admitted on August 29th, 1879, with signs of advanced coxo-femoral arthritis. The disease dated from a fall on the hip sustained in the year 1846. The immediate effect of the injury subsided under treatment, and for five years he was free from any symptoms, but in 1851 another injury again evoked the disease, from which he suffered till 1856. He then took to bootmaking and remained well till in 1871. Tired of a sedentary life he became a car-driver. At the end of 1878 he was in hospital for seven weeks, having been thrown from his car and again injured the hip. In April, 1879, he was obliged to take to his bed. The slightest motion gave him exquisite pain, and when admitted he was worn out from pain and want of sleep. Pulse 120; temperature from 99° to 102°. There was much eversion of the foot, and great apparent shortening of the affected limb. Three sinuses existed on the outer side of the thigh, two passing upwards and one downwards; denuded bone could be felt through the former. There was a large bed-sore over the sacrum, and the man's condition altogether most pitiable. His urine had to be drawn off, and great distress was caused by evacuation of the bowels. He had no desire for food. The alternatives of excision and amputation were considered. Against excision were the chronicity of the case, the probably wide extent of bone disease, and the great exhaustion of the patient. On the other hand, there is only one record of successful amputation of hip for disease, and that in a child eight years of age. On Oct. 1st Dr. Stokes amputated through the joint, Lister's antiseptic precautions being rigidly observed. The circulation in the limb was readily and completely arrested by means of Davy's lever, which was combined with Charles Bell's method of raising the limb and applying a bandage over it. The operation was made with an antero-external and postero-internal flap, as in Mr. MacCormac's case published in the *Brit. Med. Journal* of Jan. 4th, 1879. A carbolised silk ligature was placed on the femoral artery, the other vessels secured by catgut. The case made uninterrupted progress towards recovery; the pulse and temperature were seldom above the normal, and the man returned home in December, and resumed the shoemaking trade. Dr. Stokes remarked that the wound was kept perfectly aseptic for eight days after the operation, all the sinuses having been well scraped and treated with chloride of zinc at the operation. Some diseased bone was gouged out of the acetabulum, and the specimen (exhibited) of the femur showed extreme necrosis of its upper end, almost the whole of the head being absorbed, and two small sequestra being detached from it. The compact tissue of the shaft of the bone was extremely thin. The absence of shock went far to confirm Langenbeck's view that loss of blood is the main cause of shock after operation. It was noteworthy that in the two successful cases of amputation of the hip in Dublin the lever had been used and Listerian precautions carried out.—Mr. HOWARD MARSH said the Society was indebted to Dr. Stokes for coming so far to give them the record of this interesting case, and to bear his testimony to the value of Mr. Davy's method. That method had now been tried several times and had been discussed by the Society; still it did not seem to have received sufficient attention. He himself was much impressed by this method on its introduction, because shortly before he had seen a patient die from loss of blood from the posterior flap. The hip was being amputated for secondary hæmorrhage after ligature of femoral artery for aneurism. Lister's tourniquet could not be applied because of the rapid breathing of the patient, who was in extreme peril at the time of the operation. Every care was taken to control bleeding from the anterior flap; but the patient sank, presumably from loss of blood from the posterior flap. Shortly after that, Mr. Marsh assisted at a case of amputation of the hip in a child, when the lever was used and with perfect success. At the previous discussion on this subject it was asked whether any dangers followed the use of the lever. He had not heard of any; but, of course, great care must be employed.—Mr. HUTCHINSON, speaking of the propriety of amputation in cases of very severe disease of the hip, said that his impression was that a certain number of very bad cases were lost from unwillingness to resort to amputation. He had four times performed amputation in preference to excision; in two cases with complete recovery, but two became the subject of amyloid disease. In one of the cases the operation was certainly the means of saving life—the patient, a young woman, being extremely emaciated from the long-lasting disease of the joint. She is now in perfect health. All the cases occurred prior to Mr. Davy's method being introduced; but Lister's tourniquet or Esmarch's bandage (in three cases) was applied. No ill result accrued from the apparently for-

midable procedure of tying an elastic band tightly around the abdomen. He did not use Lister's spray and gauze in these cases; but employed lead and spirit lotion, and washed out the wound with spirit. In another case he should adopt Listerism, but still none of the above cases suffered for want of it. Dr. Stokes acted most judiciously, not only in deciding upon the operation, but in undertaking it so promptly. Mr. Hutchinson knew of a case where the patient died during the delay occasioned by the friends demurring to the extreme measure of amputation before other opinion was sought.—Mr. MACCORMAC said that it was plain a certain number of cases of hip-disease called for amputation because there were cases of a severe kind, which did not get well after excision. There was a lad now under his care at St. Thomas's Hospital, who was sinking from the disease, for which excision had been performed, and who would have recovered if amputation had been permitted by the parents. Amputation of the hip was called for also in cases of large and rapidly-developing tumour of the femur—such as that one he had recorded to which Dr. Stokes had referred. The patient was in a condition of extreme hectic due to a rapidly growing sarcoma, and the amputation afforded immediate relief. As to the question of shock, Langenbeck, speaking chiefly of cases of injury, avowed his belief that no shock occurs, except from loss of blood. But although in this case of his (Mr. Mac Cormac's) no blood was lost, the aorta being controlled by digital compression, yet after the limb was removed the lad was in a state of collapse, and appeared almost as if dead. — Mr. BRYANT said, the question of preference being given to amputation or resection depended to a large extent upon the age of the patient. In the young resection was comparatively a successful operation; in the adult excision of the hip was almost always fatal. In the adult there was not much experience of excision of the hip; but in cases of extreme hip disease he quite felt with Mr. Hutchinson that perhaps surgeons were too timid of venturing upon amputation; and the case brought forward by Dr. Stokes would have a valuable effect in encouraging surgeons to interfere in cases of advanced disease in adults—cases where resection would be almost hopeless. He would add his testimony in support of the value of Davy's lever. He had used it in a case of amputation for tumour of the neck of the thigh-bone, Mr. Davy kindly applying it; and certainly not more than two or three ounces of blood were lost. Loss of blood was the chief element of danger in amputation of the hip. He was accustomed to cut down at once on the artery, and to secure it by twisting both its severed ends, and at the same time to apply a carbolised catgut ligature to the femoral vein before proceeding further with the operation. In the case of tumour he had mentioned, he was struck by the scanty loss of blood, especially from the posterior flap. — Dr. GILBART SMITH asked Mr. Mac Cormac whether the shock produced in his case might not have been due to the compression applied over the aorta affecting the solar plexus. — Mr. MAC CORMAC said the pressure was applied immediately above the umbilicus. He did not think it was likely to have exerted any injurious influence on the solar plexus. A very small amount of pressure sufficed to control the flow of blood. — Mr. PARKER said he had amputated at the hip, in a child thirteen years of age, for diffuse periostitis of the upper end of the femur. The femoral vein was plugged. Although there was perfect control over the arterial circulation, much venous oozing took place, to which he attributed the fatal result that ensued. So great an amount of venous bleeding was unusual, and formed a serious difficulty in the operation. Dr. Stokes's case was interesting in view of a recent discussion at the Society upon hip disease, for it illustrated a point he had then raised that portions of the epiphysis were often detached as sequestra. Had these sequestra being removed some time before, it was possible that the patient might have recovered without loss of his limb.—Dr. STOKES, in reply, thanked the members for their comments which endorsed the line of action he had taken. One of the reasons why amputation was not more frequently had recourse to, was the fear of fatal result following the operation, and, until the introduction of Mr. Davy's method, there was always a great risk of this from loss of blood. Seeing that the mortality after amputation exceeds 50 or 60 per cent., it was not unnatural surgeons should hesitate to have recourse to it. The interference with respiration was an obvious disadvantage to the employment of Lister's tourniquet or Esmarch's bandage for compression of the aorta—a disadvantage got rid of by the use of Davy's lever He still believed hæmorrhage to be the constant cause of shock; but he did not remember that Langenbeck held it was the *only* cause. In cases of amputation of the hip the bleeding is mainly from the posterior flap, so that in this respect Mr. Bryant's case was exceptional. Had the case come earlier under his notice, and he had been satisfied of the existence of the sequestra, he should certainly have removed them. But he did not think their presence alone caused the disease, which was most extensive, and involved the acetabulum as well as the femur.

Mr. HARRISON CRIPPS read notes of a case of Secondary Hæmorrhage from the Stump of the Thigh, with calcareous degeneration of vessels. The patient, a sallow, emaciated man, sixty-four years of age, was admitted into the Royal Free Hospital in November, 1878, with a large ulcer of ten years' duration on the leg, which had rapidly increased in size, and assumed a fungating appearance. The femoral glands were only slightly indurated. The leg was amputated just below the knee by anterior and posterior flaps, and a circular incision through the muscles. In the attempt to ligature the tibial arteries they gave way, their walls being extremely brittle from calcification. Acupressure also failed from the same cause, and the vessels being now broken off deeply between the bones, Mr. Cripps was obliged to reamputate above the knee. The femoral artery was found to be less brittle than the tibials, and was ligatured. Twenty-eight days after the temperature rose, the stump became swollen, and an attack of arterial hæmorrhage occurred. Chloroform was given, and the femoral artery was cut down upon and tied in continuity by carbolised catgut. But at the end of the fifth week hæmorrhage took place from the seat of the second ligature. It was controlled by pressure kept up along the course of the vessel, from the end of the stump, by means of a specially-contrived pad. The patient, however, died from exhaustion four weeks later. The post-mortem examination showed general calcareous degeneration of the arteries; a clot filled the femoral artery as high as the profunda. Mr. Cripps remarked that in the first instance three courses were open to him—viz., application of pressure along the course of the main vessels in the leg; or pressure over the main vessel in thigh; or amputation higher up. He selected the third course as not interfering with the blood-supply of the stump, and as admitting of acupressure if the ligature of the femoral proved unsuccessful. Then, when the secondary hæmorrhage occurred from the stump, he might have reopened the flap and attempted to secure the bleeding vessel, or have ligatured the artery in its continuity, or again amputated higher up. The last course was precluded by the reduced condition of the patient; and he only regretted that the plan finally adopted on the further recurrence of hæmorrhage—viz., that of pressure along the course of the vessel—had not been followed in preference to the ligature in continuity.—Mr. HEATH did not think it possible for a surgeon to be aware of the condition of the arterial walls before operating; and in dealing with those brittle arteries broad serrated forceps should be used to draw down the vessel rather than the sharp-pointed forceps which tore through the coats. Pressure would do much to control hæmorrhage provided it be fairly applied, and not made too low down. Seeing how long a limb may be left blanched and empty of blood without injury, there was no reason why pressure should not be maintained sufficiently long to insure the formation of a clot. The precept, *Nimia diligentia*, was as applicable in dealing with cases of hæmorrhage as in other matters; and he therefore agreed with Mr. Cripps that perhaps it would have been better not to have tied a vessel which was found to be so extensively diseased, but to have trusted to the effects of pressure.—Mr. BRYANT agreed with Mr. Heath that it was unwise to use sharp-pointed forceps in dealing with atheromatous vessels. But if such a vessel be seized with well-serrated forceps, by simple torsion alone and the breaking up of atheromatous material, there was much better chance of arresting hæmorrhage. He had now constantly adopted torsion for many years, and in that time had often employed it for atheromatous vessels, and felt sure that no secondary hæmorrhage would occur if no bleeding took place during the first few minutes, his practice being to leave the forceps on the artery for a minute or so after the torsion. Secondary hæmorrhage was due to ulceration of the vessel from the ligature, and therefore he pleaded for torsion. He had never had a case of secondary hæmorrhage after torsion. He endorsed what Mr. Cripps had said as to the mode of dealing with the secondary hæmorrhage, except that where he suggested re-

amputation; for, as Mr. Cripps himself had formerly shown, the bleeding in such cases is from the lower part of the vessel. Pressure along the vessel was therefore the surest measure to adopt.—Mr. MACCORMAC asked if the effect of position had been tried.—Mr. CRIPPS, in reply, said that, during the operation, the stump was raised up, but without any appreciable effect on the force of the bleeding. On the first two trials to tie the tibials he used the ordinary pointed forceps; but on the third occasion he tried to catch the artery by torsion forceps, but the vessel had receded too far back. Re-amputation was had recourse to because of the impossibility of arresting the hæmorrhage in any other way. Then afterwards, in dealing with the stump, he feared to employ pressure owing to the swollen and tender state of the limb, and resorted to ligature in continuity, seeing that there was no risk of gangrene ensuing. Still he believed that pressure above and below the bleeding point is the best means for arresting hæmorrhage.

The Society then adjourned.

EPIDEMIOLOGICAL SOCIETY.

AT a meeting of this Society, held at University College, Gower-street, on April 3rd, Sir Joseph Fayrer in the chair, a paper was read by Dr. G. B. LONGSTAFF, on "Some Statistical Indications of a Relationship between Scarlatina, Puerperal Fever, Erysipelas, and certain other diseases," of which the following is an abstract:—The reader of the paper described an application of the graphic method to the statistics of the causes of deaths in England and Wales published in the annual reports of the Registrar-General. He stated that by representing the death-rates as curves, and comparing together the annual fluctuations of these curves, he had been led to divide the causes of death in this country into four groups—(1) the diarrhœal group, being directly related to the heat of the summer; (2) the bronchitic group, having a similar relation to the cold of winter; (3) the scarlatinal group, under consideration that evening, and (4) a provisional group, comprising all the other causes of death not at present known to be much influenced by meteorological conditions. A large diagram was exhibited, showing the death-rates from pyæmia, puerperal fever, erysipelas, scarlatina, laryngitis, croup, diphtheria, cynanche maligna, quinsy, and rheumatism with disease of the heart or pericardium, all graphically represented by variously-coloured curves. All these curves exhibited more or less marked indications of four periods of epidemic fatality separated by periods of comparative quiescence, but some of the elevations were more marked in one curve, some in another. The curves of puerperal fever and erysipelas appeared to be almost identical, and those of croup and diphtheria were also very closely allied. The diagram showed very clearly the varied headings under which deaths from diphtheria were returned in the country at the commencement of the great epidemic of 1858-9. The curve of rheumatic fever was also closely related to that of erysipelas, a point reserved for further investigation. Dr. C. Minor, of the United States, had called attention in 1874 to the close connexion between erysipelas and puerperal fever, and Dr. Longstaff's examination of the fatality of these diseases in the eleven registration districts of England and Wales for the last twenty-five years furnished a strong confirmation of his results. In order to approach this subject from another point of view, a diagram was shown (copied by permission from a paper by Messrs. Buchan and Mitchell in the *Scottish Meteorological Journal*) in which was given the mean weekly deaths in London from the same diseases for thirty years. The results gained by a comparison of the curves in this diagram on the whole confirmed the result obtained by the reader of the paper and indicated in the diagram first referred to. Laryngitis, and to a less degree scarlatina, were exceptions. But, again, puerperal fever and erysipelas closely resembled one another, as did diphtheria and croup. The amount of rain in each year, as well as the number of rainy days, seemed to be closely related to all the diseases under consideration, but in an inverse manner. The relative dryness or wetness of different seasons of the year showed no very apparent connexion with the fatality from diseases of the scarlatinal group, but a year on the whole wet almost invariably corresponded with low mortality from several or all of the members of this group, whereas in very dry years epidemics of these diseases occurred. The notable fact being that the same rule does not apply to small-pox, measles, whooping-cough, or typhoid fever. The explanation would appear that rain acted as a purifier of the air, washing the poison out of it, though it was not apparent why it only removed certain poisons. In the opinion of the reader of the paper the facts brought forward suggested that the poisons of puerperal fever and erysipelas, as also those of diphtheria and croup, were identical, and that the multiplication of species in the classification of disease should be avoided as far as possible.

Reviews and Notices of Books.

Clinical Lectures and Essays. By Sir JAMES PAGET, Bart., F.R.S., &c., Serjeant-Surgeon Extraordinary to Her Majesty the Queen, &c. Edited by HOWARD MARSH, F.R.C.S., Assistant-Surgeon and Lecturer on Descriptive and Surgical Anatomy at St. Bartholomew's Hospital. Second Edition. London: Longmans, Green, and Co. 1879.

To the honest practitioner, no less than to the philosophical student of medicine, it is deplorable that the exigencies of medical professional life in these days should encourage or require the uncultured and inexperienced or the needy, the arrogant, and the ambitious to write much and often, while they almost entirely prevent the skilled, the learned, and the experienced from writing at all. Sir James Paget is a conspicuous victim of this unhappy dispensation. It is many years since Mr. Paget, by his famous Lectures on Surgical Pathology, opened up to his professional brethren the promise of many valuable and substantial additions to surgical literature. But this promise has never been adequately realised. In 1875—that is, after the lapse of nearly a quarter of a century—Sir James Paget, timidly, and not without an apology, republished a selection of his Clinical Lectures and Essays, most of which had already appeared in medical journals or in hospital reports. These lectures and essays were, as a matter of course, well received, and a second edition has been called for. As the preface announces, few changes have been made in this edition. Four lectures on Gout in some of its Surgical Relations have been added, and an essay on some of the Sequelæ of Typhoid Fever. The editor has, moreover, largely augmented the notes and index. The new lectures on Gout in its Surgical Relations are replete with wise and judicious clinical observations, the results of a long and varied experience. Speaking of some of the consequences of injuries befalling the gouty, Sir Jas. Paget warns practitioners against the use of arnica lotion in liniments or in other local applications.

"I am not sure," he says, "that it is useful in any case; but I know that in the gouty it very commonly produces what is called erysipelas, or severe inflammation of the skin, often with vesication, always with intense heat and pain or burning, often spreading far beyond the part to which the arnica is applied, and in this way much more troublesome than the injury which it is meant to cure."

We are told that all gouty persons repair injuries of their joints more slowly than those who are healthy, and that gout may be suspected when, in a person of middle or later age, an injured joint does not recover in due time. Many of the unmanageable cases of gleet following venereal gonorrhœa may also, it is stated, often be referred to gouty inflammation producing thickening and contraction of the submucous tissue of the urethra.

Not a tithe of the richness of these and the other lectures could be exhibited by any summary. To be adequately appreciated they must be read over and over again. We must, however, in parting, point out a statement that has been allowed to stand in the second edition—namely,

that in the operation for femoral hernia "the first incision may be *vertical in a line drawn straight down from the spine of the pubes*" (the italics are ours). Such an incision would be surely too much to the inner side of the hernia.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Tom. xxviii. PIL—POI. Directeur de la Rédaction Dr. JACCOUD. pp. 752. Paris: Baillière et Fils. 1880.

THIS volume contains seven large articles and numerous notices of subordinate subjects. The former include Placenta, by Eugène Marchal; Plaies, by J. Rochard; Pleura and Pleurisy, by Fernet and D. Heilly; Plomb, by Prunier; Pneumonie, by Lépine; and Poitrine, by L. Merlin. The article on Pneumonia is the longest in the book, and is very completely worked out. The subject is treated by M. Lépine under the following heads:—1. Acute lobar pneumonia, which has twelve pages of closely-printed bibliography appended to it, containing the names of upwards of 500 authors, sufficiently attesting the interest that this affection has excited. 2. Broncho-pneumonia. 3. Chronic pneumonia. M. Lépine pays a just tribute to the genius of Laennec. Laennec's description of pneumonia, both in regard to its anatomical and clinical features, he says, was made by the hand of a master, and notwithstanding the labours of his successors, has left little to be added. The chief fact that has been ascertained in regard to the first stage or stages of engorgement since Laennec's time is, that the alveoli are partly filled with red globules, and by large cells, containing from one to three nuclei. These cells are evidently modified endothelial cells. Yet it must not be considered that this is pathognomonic of inflammation, for it has been shown by Friedländer that similar modifications of the cells may be seen in other states, and especially in œdema. In the stage of red hepatisation the lung presents a granular aspect on section. These granulations are due to the infundibula, which are filled with masses of fibrin, and these masses can be separated by scraping the surface, and are then found to be nodulated on the surface, the projections representing the alveoli. On microscopic examination these masses are seen to consist of fibrin threads, with white and red corpuscles in their meshes. In the stage of grey hepatisation a section presents scarcely anything more than masses of white corpuscles, with here and there large cells full of fat granules and pigment molecules. The leucocytes appear, from the recent investigations of Buhl, to be derived not only from the blood by diapedesis, but from the lymph, and by proliferation of the connective-tissue cells. The frequency of pneumonia is extraordinarily great, averaging from twenty to thirty per thousand in all the great hospitals of Europe. In regard to the causes of pneumonia, whilst the author admits cold, or rather a chill, to be the most common one, he admits, in addition, exhaustion, toxic agents, local injuries, lesions of the nervous system, miasmata, and the previous occurrence of certain febrile conditions. The greenish colour of the expectoration is due, he finds, to the presence of biliverdin, as may be shown by Gmelin's test. As compared with that of bronchitis, the expectoration in pneumonia contains no alkaline phosphates, whilst salts of the expectoration in bronchitis contain from 10 to 14 per cent. In pneumonia, the expectoration is richer in soda than in potash, whilst the reverse is the case in bronchitis; and lastly, the expectoration in pneumonia contains 8 per cent. of sulphuric acid, whilst that of bronchitis only contains 3 per cent. The various sounds heard on auscultation are very fully given, and he notes that crepitation has not quite the diagnostic value that Laennec attributed to it, since Grisolle, Woillez, and others who have paid special attention to this point, have satisfied themselves that in many instances (eighteen times in sixty-three cases, Woillez), crepitation either did not occur at all or at a late period only. An interesting section is devoted to the subject of pulmonary ventilation in pneumonia. Under ordinary circumstances the air expired by a healthy man contains nine-tenths of the oxygen inspired—i.e., $CO_2 : O = 0{\cdot}9$, but in double pneumonia $CO_2 : O = 0{\cdot}59$; and when one lung only is attacked, $CO_2 = 0{\cdot}72$ to $0{\cdot}63$. An interesting point has been made out by Schülein in regard to the temperature in pneumonia, which is not only that the periphery is maintained at a very high temperature, but that the curve of temperature of the extremities follows that of the axilla; so that the pneumonic patient not only loses much heat, but loses that heat with a regularity that does not occur in any other febrile affection. Tracings are given both of temperature and of the pulse. The remainder of the article is worked up with exemplary care and minuteness. The subject of treatment commences with a reference to the expectant plan, which yielded Dietl, a pupil of Skoda, such excellent results in 1849, the mortality being only 7 per cent., whilst the mortality in those who were bled was 20 per cent., and in those subjected to tartarised antimony also exactly 20 per cent.; but it is pointed out that at a subsequent date (1854), notwithstanding the expectant plan was still thoroughly adhered to, the mortality rose to 20·7 per cent., whilst Wunderlich had a mortality of 27·5 per cent. and Leudet of 25—28 per cent. Although the various means of treatment generally adopted are mentioned, this part of the subject is discussed with much brevity. We have left ourselves no space to allude to the other articles, and especially that on the chest, which is exhaustive.

NEW JOURNALS.

WE have before us early numbers of several new additions to medical journalistic literature. The *Deutsche-Amerikanische Apotheker-Zeitung*, published in New York, but in the German language, is intended as an organ for "apothecaries, doctors, chemists, and druggists," the "doctors" being apparently thrown in promiscuously, the chief part of its contents being designed for the class of pharmacists. *El Jurado Médico-Farmacéutico* is a weekly journal of medicine, surgery, and pharmacy, published in Madrid, the first number of which has just made its appearance. Although not a new periodical, since it is already in the second year of its existence, the *Annals of the Anatomical and Surgical Society of Brooklyn* is little known in this country. It is issued monthly, and edited by Dr. Charles Jewett. The April number contains, amongst other articles, a lecture by Dr. Wyeth, on the anatomical reasons for dextral pre-eminence in man, and papers on the surgical treatment of facial neuralgia, on uterine tumours, and an interesting biographical sketch, by Dr. G. J. Fisher, of Colot, and other old lithotomists. The periodical is admirably printed. Another monthly American periodical began its existence with the present year, the *Independent Practitioner*, devoted to "Medical, Surgical, Obstetrical, and Dental Science." It is edited by Drs. Harvey Byrd and Wilkerson, and is published at Baltimore.

CITY OF DUBLIN HOSPITAL.—The trustees of this hospital have appealed for funds to carry on the work of the institution in an efficient manner, and without reducing the number of patients admitted to the wards. In 1875 the hospital received £1160 from the Sunday Hospital Fund, and in consequence the directors provided additional wards, improved the dietary, increased the number of nurses, and appointed a resident surgeon at a salary of £100. As, however, additional institutions shared in the Hospital Fund after 1875, the receipts from this source fell off, and the result has been that on the 31st of last December a debt was due of close on £2000. Subscriptions amounting to £589 have already been received, and we trust that the amount required will shortly be obtained.

THE LANCET.

LONDON: SATURDAY, MAY 1, 1880.

No reformers are more urgently affected by the new political situation than medical reformers. When the Parliament was dissolved three private Medical Bills were before the House of Commons, or rather before the Select Committee of the House. The authors of these Bills, or their chief promoters, were Dr. LUSH, Mr. ARTHUR MILLS, and Mr. ERRINGTON. No less than two of the three are out of the present Parliament. Besides this, Mr. WHEELHOUSE, another member of the Committee, whose proclivities were strongly in favour of medical reform, has not been successful in the recent election. These gentlemen had made themselves familiar with the question; and Dr. LUSH, in particular, had not only, by his successive Bills, shown the really urgent points in medical reform, but in the last two Parliaments, at one or two important junctures, boldly used his position to stop measures, promoted by strong Governments, which would most prematurely and inadequately have dealt with the subject. The absence of these gentlemen from the new House of Commons is a great disadvantage to the cause of reform. The whole disadvantage, however, is not yet stated. Mr. FORSTER, one of the most earnest and honest of public men, went into the investigation of the amendments needed in the Medical Act as seriously as any other member of the Committee. His position as a leading member of the Opposition might have supplied him with a plausible excuse for declining to serve on the Committee. But he not only consented to act, but to take the chair of the Committee in 1879; and in 1880, though he declined the responsibility of the chairmanship, he continued to take an active interest in the inquiry, and did actually preside at the sitting at which Professors GAIRDNER and STRUTHERS gave their evidence. It would be sanguine to expect Mr. FORSTER, in office, and as the Secretary for Ireland, to give as much attention to the amendment of the Medical Act as he managed to give last year while in opposition. We must be satisfied if he continues his personal interest in the question, and uses his great influence in the Government to induce it to appoint a new Select Committee to complete the investigation which is so well begun; and this much we, for our part, will confidently hope for from Mr. FORSTER. There is an idea in some quarters that the Committee, at its last sitting, recommended the closing of the inquiry. Nothing is more erroneous. The Special Report of the Committee, agreed to on the 12th of March, runs as follows:—

"Your Committee are of opinion that, in consequence of the approaching dissolution of this present Parliament, it is not possible to complete the evidence which bears on the Bills referred to them. That the Bills be, therefore, reported to the House without amendment, together with the minutes of evidence taken before them, and an appendix."

Here is the judgment of the Committee that the evidence taken by it was incomplete. We have only to remind our readers that the Committee was hoping, before the unexpected notice of dissolution, immediately to be favoured with the evidence of Sir WILLIAM JENNER, to show how incomplete the evidence is, and how important it is that the work left undone by the late Parliament should be vigorously commenced and completed by the new one. It would be strange indeed if so good a piece of reform, begun by a Conservative Government and heartily helped by several members of the Conservative party, were to be abandoned by a Liberal Government backed by an unprecedented Liberal majority. Such a course would be disrespectful to the Select Committee and to the witnesses examined by it.

The enemies of reform may fancy this a favourable break in the process of investigation, and they may be excused for hoping that their individual corporations, with their half-diplomas and one-sided examinations, will be granted an indefinite lease of life. We scarcely think that these bodies will themselves so read the signs of the times. If they are wise they will accept the inevitable, and join those who honestly and eagerly wish to put the entrance examinations of the profession on a more satisfactory footing, and to equalise them in the several divisions of the kingdom. It must not be forgotten that the present Government is committed to a conjunction of Boards as deeply as, or even more so, than the late one was, and that it has learnt by experience that this reform cannot be secured without a contemporaneous reform of the constitution of the General Medical Council. Under such circumstances we venture to hope that there will be no further resistance to needed changes, which are likely to be moderate and reasonable in proportion to the promptness with which interested bodies agree to them.

It only remains for medical reformers to agree to resume their work with vigour and harmony. It is scarcely likely that actual legislation will take place this year, but there seems no reason why the evidence should not be completed during the present session, and all be in readiness for an amending Bill in the beginning of 1881. We would urge upon all sections of medical reformers united action, with a view to secure the re-appointment of the Committee and the examination of witnesses conversant with the defects of the present Acts, the faults of the General Medical Council, and the shortcomings of the existing system of medical education and examination. The Parliament will soon be absorbed in great constitutional and political questions, and the best time for asking its attention to the useful but unromantic question of medical reform will be at the very beginning of its life.

IT must be confessed that the doctrine on which the practice of quarantine is founded is both plausible and seductive. It assumes the practicability of arresting the dissemination of infectious or contagious diseases by preventing for a time any communication between the sick and the persons who have been in direct or indirect, or even possible, association with them and their healthy fellows as yet uncompromised by exposure to any chance of the infection; also by laying an embargo upon and keeping apart for a longer or shorter time anything — goods, merchandise, carriages, ships, &c.—which might become a vehicle for the transmission of infection from an infected person or locality. The doctrine of quarantine, in fact, assumes the possibility of, and the practice aims at, shutting out *all* sources of

infection from a healthy community. Such shutting out at first sight appears to involve little difficulty, but it was comparatively early recognised in practice, if not in theory, that a presumed efficiency of quarantine was very much a matter of locality; in other words, that quarantine was more likely to be successful in seaports than in inland places, and in preventing the incoming of foreign infection, than in arresting the spread of infection that had already effected a lodgment or was current in a country. So it happened that in process of time quarantine came to be regarded as specially a maritime question, and in seaport towns only, as a rule, has the system taken a permanent form among measures of sanitary police. It is particularly in its maritime relations that quarantine has retained, and still retains, its hold upon civilised nations. On the sea-coast, and as against the importation of foreign infection, the doctrine as applied in practice should hold good, unless some egregious fallacy underlies it; for what more simple (in appearance) than the supervision and isolation of all vessels, passengers, and cargoes coming from places whence they may be likely to, or even may possibly, bring with them some deadly infection? Now this, as relating to a matter of observation, and as affecting not only maritime but also inland quarantine, is a question of experience, and this experience, as we read it in this country, teaches us that while the doctrine of quarantine theoretically considered may in a certain sense be right, it has hitherto been found impossible to carry that doctrine out effectively in practice.

So marked has been the failure of quarantine to arrest any considerable extension of infectious disease, such as plague, cholera, yellow fever, &c., that in 1848–49 the General Board of Health of this country used this failure as an argument to disprove the infectious nature of these diseases! It is now known that the failure arose largely from the impracticability, in countries where any activity of commerce exists, of closing all the avenues by which infection could make its way. Contraband of quarantine was one of the commonest incidents of attempts to enforce quarantine stringently, and may be looked upon as a normal complement of the system. Moreover, in all great extensions of disease the initial extension has generally occurred before the danger was anticipated, and the imposition of quarantine has taken place after the mischief which it was designed to avert had been accomplished. This was notoriously the case in the great epidemic of cholera which invaded Europe and the Western hemisphere in 1865. The fact here referred to throws doubt even upon the applicability of quarantine in islands and places out of the ordinary routes of commerce, and whose relations with the outer world are so restricted as to give more or less reasonable hope that they can seclude themselves. Putting aside the cruelties which too frequently attach to the system, and the follies which have characterised its administration, as not essential to it, and regarding quarantine simply in its medical aspects as a measure for arresting the spread of infection, the teachings of experience we hold to be overwhelmingly against its efficacy for this purpose. True it has been asserted that we owe the recent escape of Europe from a general dissemination of plague to the strict measures of quarantine put in force by the Russian Government on the Volga. It is not explained by the asserters how the earlier measures of quarantine established by the Russian Government against the Persian ports on the Caspian to prevent the spread of plague from Ghilan and Mazanderan to Russian territory by the sea route, and even the suppression of traffic with these ports for a while, failed to check that spread. Still less is it explained in what fashion a system of quarantine effected its object when the disease of which it was sought to prevent the dissemination had practically ceased (as was the fact) before any measure of quarantine was adopted in the infected district on the Volga. Certainly the world hardly ever before witnessed so strange an example of epidemic lunacy as that which occurred upon the news being made public in the first week of January, 1879, that plague had appeared on the Volga. The disease virtually came to an end in the second week of that month, yet beginning with that week, and for several weeks afterwards, European Governments vied with each other in reviving obsolete methods of quarantine, maritime and inland, against the compromised country, and against the uncompromised countries of each other. Even the British Government yielded to the general infection of alarm, and, in its fear, under the plea of political exigency did not hesitate to announce the revival of our old quarantine law, and to traverse our public-health administration—in other words, to transfer the functions of protecting the kingdom from invasion of plague from the skilled medico-sanitary officers of our seaports to the unskilled fiscal officers of the Customs, and the mere routine procedure of the Quarantine Act! And so also of certain recent westerly movements of cholera, and their seeming arrest in the Gulf of Suez, it does not seem to have been observed that this conclusion is much wider than the facts justify.

Quarantine starts from the fundamental position of the desirability of arresting or limiting the spread of infectious disease. Of this desirability there cannot be a question; but quarantine has failed to bring about such arrest, and so far as it may have contributed to limiting the spread, this has not arisen from any peculiar virtue in quarantine itself, but from circumstances incidental to its exercise, and not necessarily connected with it. Much of the error still existing with relation to the assumed merits of quarantine arises from a failure to discriminate between those matters which are essential to the system and those matters which in recent years have become superadded to it. In so far as it has proceeded and still proceeds upon arbitrary lines of secluding the sick and the so-called compromised healthy, and of crude, incongruous chemical disinfections, quarantine has been and is an unmixed evil, not only from its futility, but more especially from its diverting attention from a true prophylaxis of infectious disease. In so far as it may have contributed to a clearer knowledge of the conditions under which the isolation of persons and things is desirable and may be advantageous, and of the hygiene of ships, and of masses of persons, such as pilgrims and emigrants, journeying both by sea and by land, quarantine may indirectly have yielded certain advantages, but advantages wholly disproportionate to the cost at which they have been gained, and which were attainable in a much simpler and more effective fashion. Quarantine, in fact, is but the perpetuation of a traditional practice which had its origin five centuries ago in the dark ages of physic, which is fundamentally unchanged notwith-

standing certain modern verbal veneerings, and which is inconsistent with our present knowledge of the habits of infectious diseases.

In this country and in Denmark, quarantine has for some time ceased to have a medical signification. It is retained on the statute-book, and ordinarily exhibited in certain formal administrative measures, to obviate disabilities which would else be imposed upon our shipping in the ports of Governments which adhere to the practice of quarantine. Here the general sanitary administration of the kingdom is so devised that every district, inland or coastwise, is enabled to deal with infectious disease, coming from whatever source, by removal of the conditions which would foster its development, by preventing reckless dissemination of infection, by isolation of the infected individual, and by disinfection. In addition and with reference to foreign infections, port sanitary authorities are given the power as regards cholera to medically inspect persons arriving in ships from infected places, to remove and isolate the sick found on board (letting the healthy go free), and to use such processes of disinfection as to the vessel and the articles thereon as may be deemed necessary. This method of dealing with foreign infection is founded not upon imaginative beliefs as to possibilities of infection, but upon actual observation of probabilities, and there can be no doubt that it is equally applicable to plague and yellow fever as to cholera. The method here referred to has been termed the system of "medical inspection" as contrasted with "quarantine." Experience shows that it does all that the most efficient quarantine can be hoped to do, and this more effectually, without involving those grave hardships to individuals and interruptions and disturbances of commerce which have arisen and must arise from quarantine. Quarantine having failed to *shut out* infectious disease, is thereby condemned; the *limitation* of infectious disease may be effected in other and better ways, of which the system of "medical inspection" is an example. It is not asserted here that that system may not be capable of amendment, but it is affirmed that, being founded upon actual observation and forming part of a method of dealing with infectious diseases, in view of their limitation, which obtains throughout the whole country, it has greater claims upon professional and public confidence than a system like quarantine, which is founded solely upon assumptions that have been discredited by experience, and of which the administration, with reference to disease prevention, is an insult to ordinary intelligence. It ought to be sufficient to condemn even the formal administration of quarantine in this country, that the quarantine (Customs) officer, not long ago, in one great port, questioning the master of a ship as to sickness on board, could pass the ship into dock with more than one person dead of cholera in it, and that the Customs' "rummager," whilst "rummaging" the same ship, could turn a man dying from cholera over in his berth without recognising the fact. Again, in another great port, about the same time, the quarantine officer, shouting out his questions to the master from his boat alongside, gave free passage to a ship with cases of cholera on board to be landed in the seaport town. And these are but samples of the sort of intelligence (!) which enters into the quarantine administration of English ports. It is derogatory to England that she should submit to continue hideously farcical, and, so far as the public health is concerned, highly detrimental proceedings such as these, to meet the unreasonable demands of certain Continental Powers; it is more than derogatory when real precautions can be substituted for sham ones—precautions of a nature which it is difficult to believe would not be accepted in lieu of obsolete quarantine arrangements by the Powers in question.

WE are instituting an inquiry concerning the hygienic conditions of school life, and the physical and mental training of the young in establishments, whether public or private, devoted to educational purposes for gain. It is important that the question should be carried into the class of schools, not always so called, conducted by clergymen and others who "take boarders" to educate "with their own children." We ask, and expect to receive, the cordial help of those who are engaged in this work, counting with confidence on the fact that a spirit of earnestness pervades the ranks of those who are engaged in the care and culture of the young, and therefore any new light which may be thrown on the principles of mental and physical education as an applied science must be welcomed as it deserves to be. In order to make the investigation really useful, the largest possible number of facts must be at our disposal, and the task of collating the data so obtained for the purposes of inference must needs be heavy and arduous. We shall approach the subject without prejudice of any kind, and it may be said at the outset that we do not expect to find any grave scandals or defects to be exposed. The days which permitted the system illustrated by that master of social caricature, the late CHARLES DICKENS, to flourish have gone; and although history repeats itself, Dotheboys Hall is not likely to be reconstructed, at least not on the old foundations. The faults of to-day are for the most part errors of judgment, or defects arising out of, if not due to, circumstances. There may be some lack of progress, but even this is probably the result of failure to recognise the importance of the issues involved rather than of indifference. In a word, we regard the profession of educators as composed of honourable and earnest workers; and it is solely with the desire to aid their enterprise, so far as the science of health and development is concerned in the care and culture of youth, we interpose.

The outline we have sketched for the guidance of those who are willing to give us their help in the preliminary stages of this inquiry, indicates as topics for the statement we are anxious to receive from every schoolmaster and educator the following questions:—1. How many boarders have you, and what are their ages, generally? 2. Were the premises now appropriated as a school-house built for that purpose, or adapted? What is the nature of the ground on which the building stands? Describe the locality, and give particulars as to climatic conditions. 3. What cubic air-space is allowed to each sleeper in the dormitories or bedrooms? 4. What is the size of the apartment used as a schoolroom, and how much cubic air-space is there for each pupil? 5. What is the ordinary diet, as to the quantity and kind of food, and how are the meals distributed? 6. What time is spent in school-work, and what hours are devoted *wholly to*

play? State the hours of retiring to bed and of rising, and mention the arrangements for visiting the sleeping apartments at unexpected times. 7. What cases of illness occurred in the school during the years 1878–9, and what has been the general state of health in the establishment? If any epidemic disease has visited the school, please state the circumstances. 8. What are the sanitary arrangements of the establishment as regards drainage, closets, lavatories, bathing, towels, brushes, &c. &c.? 9. What provision is made for the isolation of cases of infectious or contagious disease in the event of a *sudden* attack? 10. What system of medical inspection is adopted? Does a medical man systematically visit the establishment, or does the "doctor" only attend when called in to treat a case of sickness? Nothing depends on the precise terms employed, but, in response to the expressed wish of our correspondents, we offer this suggestion of points on which it is desirable our Commissioners should be at once informed.

We depart somewhat from our usual practice, in opening an inquiry of this nature, by addressing the responsible managers of the institutions it is desired to inspect, but the reason will be obvious to anyone who reflects on the magnitude and great importance of the undertaking to which we now stand committed. It would clearly be impracticable to visit a tithe of the smaller, but in a practical sense, the most important, establishments in the country; while no investigation of this class could prove of any great value unless it covered the whole field. The course we intend to pursue is simply this. Having ascertained how far the great body of teachers may be willing to take advantage of this offer of help in their work—which we shall be entitled to infer from the number and nature of the replies with which we are favoured—it will be incumbent upon us to consider in what light the reticence of those who are not disposed to regard the inquiry with favour ought to be viewed, whether, in short, their unwillingness is based on reasonable grounds. The proportion of refusals to co-operate will, so far as we can yet judge, be very small, and it may suffice to deal with the cases individually. Our sole object is to get at the *facts* relating to the education of the youth of this country, and to study the various systems of care and training which at the moment prevail. In the end, we propose to give the results of our inquiry in the form of reports and suggestions, with a view to formulate the conditions of health in body and mind, as definitely as may seem to be expedient. These results will be the mean of vast multitudes of experiences, tested by the methods which science creates and applies to the details of practical life. It will now be apparent how essential it is to secure the co-operation of all experienced educators, and to their known anxiety to do the best for the youth committed to their guardianship we now appeal.

AT the last monthly meeting of the Board of Management of the Manchester Infirmary it was stated that a sub-committee had been appointed to have an interview with a sub-committee of the Medical Board, in order to consult as to the desirability of the medical students paying something to the funds of the infirmary. It appears that hitherto they have not contributed anything towards the maintenance of the institution, although the whole of its appliances, instruments, &c., have been freely placed at their disposal.

Annotations.

"Ne quid nimis."

"A GREAT POLITICAL OPPORTUNITY."

UNDER this heading, in our issue of April 10th, we wrote as follows:—"The weak point in the English system of government as at present constituted, is the isolation of the department which *theoretically* gathers up the reins of local self-government and places them in the hands of the Ministry, but which *practically* not only fails to perform that necessary function, but entangles the ribbons and frets the team.....It is easy to cut the Gordian knot of this difficulty, and to render the process of reconstruction facile by the simple and timely precaution of placing a strong and wise man at the head of the Local Government Board, and making him a member of the Cabinet.....We have long and importunately insisted on the claims of the country to a Ministry of Public Health. *This need would be satisfied if the Minister upon whom it devolves to carry out the provisions of the Public Health Acts were a member of the Cabinet.* The immediate effect of such an arrangement would be to make the health interests of the country *an integral part of the Ministerial policy.* It could not be otherwise. And thus we should gain in fact what the country has been repeatedly promised in a figure of speech, a policy having for its maxim *Sanitas sanitatum, omnia est sanitas.*"

In no spirit of vainglorious exultation, but with sincere gratification, on behalf of the profession THE LANCET represents, we now record the fact that this policy has commended itself to the judgment of the Prime Minister, and has been carried into effect. Mr. Dodson, a statesmanlike legislator of tried ability, in whom the profession and the public will have the fullest confidence, has been appointed President of the Local Government Board with a seat in the Cabinet. It is only necessary to repeat that the step we recommended, and which has now been taken, "is certainly one which must have a keen interest for the medical profession and the country at large, because it will create a Ministry and give us a Minister of Health—a double boon, which political feeling and public expediency both urgently crave."

By this procedure Mr. Gladstone has, at the outset of his new career, established a strong claim on the respect and good feeling of the not unimportant medical services connected with Public Health and the Poor Law department, and given a practical pledge of reforms which are urgently needed, and could not, under any circumstances, be long deferred. It was a timely and sagacious measure to concede the recognition we have so long struggled to obtain. The path is now cleared of many difficulties, and the Government may count on the support of the medical profession on grounds broader and more permanent than any mere considerations of political sympathy, or party claims.

VACCINATION IN THE METROPOLIS.

A DIMINUTIVE, but suggestive, ray of light is thrown upon the defective administration of the Vaccination Act in the metropolis by a letter addressed by the Local Government Board to the Shoreditch Board of Guardians, and read at their meeting of April 14th. It appears that Dr. Stevens, one of the central authority's inspectors of vaccination, has

reported that the vaccination returns from Shoreditch are very low as compared with other metropolitan parishes, and that he attributes this shortcoming principally to the great bulk of the children born in the workhouse escaping vaccination. Dr. Stevens recommends that the Shoreditch Guardians should follow the example of the guardians of St. Pancras and St. Giles, Westminster, and give the medical officer of the workhouse a small fee for each child vaccinated in the workhouse. This recommendation is to be considered, and, meanwhile, the Shoreditch Workhouse is to be permitted to store up fuel for the next epidemic of small-pox. As we understand this question, the Local Government Board casts on the one hand the duty of vaccinating children in the workhouse upon the medical officer, but, on the other, it admits that this duty should not be thrust upon him except in consideration of some special remuneration for it. The guardians have a discretionary power in granting such remuneration. Thus it happens that the Local Government Board in effect deprecates the performance of his strict duty in this matter by the medical officer, and if, as in the case of Shoreditch, the guardians elect to be governed by the literal requirements of the Local Government Board's orders as to the duties of the medical officer, vaccination is liable to be very much if not wholly neglected within the workhouse walls. An anomalous state of things of this sort would have been hardly tolerable under the old poor-law administration; but now that the poor-law and public-health administration are brought together under one central authority, it is a public scandal that trumpery administrative difficulties of this kind, created by the central authority itself, should not be removed.

POPLITEAL ANEURISM.

THE interesting case of popliteal aneurism successfully treated by Esmarch's elastic bandage, showed to the Medical Society on Monday last, is one of the best results of this treatment yet obtained, and Mr. Goodsall must be congratulated upon it. The aneurism was a large one, had developed rapidly, and from all appearance had a very free communition with the artery—a large mouth to the sac. The treatment differed slightly from that hitherto employed, for the bandage and tubing were left on the limb for three hours—a very long time—and the bandage below the aneurism for an hour longer, during which all flow of blood through the artery must have been stopped. The treatment was really employed for four consecutive hours; for all that time there must have been complete stasis of the blood in the aneurism and adjoining part of the artery. When the bandage was removed the artery above was not subjected to compression, digital or instrumental, as has been customary, and no pulsation was at any subsequent time detected in the sac. In this case, therefore, there was rapid coagulation of the blood both in the aneurism and adjoining artery, which speedily resulted in complete cure. In many cases when the bandage has been removed pulsation has been much lessened, or even very slight indeed, and, under the use of digital compression, has gradually disappeared altogether. In these cases the clotting has at first only taken place in the aneurism, and the circulation in the still patent artery has transmitted pulsation to the tumour. When the force of the blood-current was diminished the clotting was enabled gradually to extend from the aneurism to the artery. In other cases, again, the pulsation, at first greatly lessened, has gradually increased to its original intensity; here the clot first formed has, in all probability, been gradually disintegrated. Mr. Bryant's case of popliteal aneurism which ran this course, in which gangrene of the foot supervened upon the case, confirms this view, for the gangrene is most easily explained by embolisms from the aneurism. Mr. Goodsall's case lends support to the view originally set forth by Mr. Gould in our columns that this plan of treatment is most successful in aneurisms with large mouths, in which the clotting readily spreads into the artery, for in his opinion the cure results from the plugging of the artery, and not from the filling of the aneurism.

THE REPRESENTATION OF THE UNIVERSITY OF LONDON.

THERE is now no doubt that the member for the University of London is to be raised to the peerage, and a vacancy will thereby be created in that constituency. Rumour has already been busy with the name of his probable successor in the seat; and it has been strongly urged by Dr. Joseph Rogers, in the *Times*, and also by Mr. Reginald Harrison, of Liverpool, in a letter to us, that the opportunity should be seized for securing a medical representative. No one can be more desirous than we are to see more representatives of the medical profession in the House of Commons, but when we remember that the medical graduates of the University form barely one-third of the constituency, it seems almost impossible for the University to be represented by a medical member, unless his claims be so great as to commend him to the whole constituency on other than purely medical grounds. Should such a candidate be found, he would prove a most desirable addition to the House of Commons; but so far as can be judged of the result of the recent election at the University, it seems clear that it would be a matter of great difficulty to secure a candidate from amongst the medical graduates who would find favour with the vast majority of the electors. The Master of the Rolls, Sir Julian Goldsmid, and Sir John Lubbock, are all named as probable candidates for the representation of the University.

BAGOT v. BAGOT.

THE celebrated cause of Bagot *v.* Bagot, commenced in April, 1878, in the Irish Probate Court before Judge Warren, has at length terminated in a compromise. The main facts of the case are as follows:—Christopher Neville Bagot emigrated to Australia in the year 1844, and after an absence of some twenty years he returned to England, having amassed a large fortune, amounting to nearly £6000 per annum, invested in land, and some £60,000 of personalty. On August 8th, 1875, he married Miss Verner, he being fifty years of age and she twenty-two, and ten weeks after marriage Mrs. Bagot was confined with a boy. Bagot seemed pleased to have a son, and treated the boy as his own, until March, 1876, when he first seems to have conceived the idea that the child was not his; and in September, 1876, he made a will practically disinheriting Mrs. Bagot's boy, leaving him only some £10,000, and Mrs. Bagot an annuity of £1000 a year, and bequeathing the bulk of his property to his brother. Mrs. Bagot after her husband's decease in May, 1877, brought an action against the executors of the will, on the ground that her husband was not of sound mind when the will was executed. In support of the will, the defendants proved that in 1869 C. N. Bagot was completely paraplegic, the result of injuries in Australia; and that, although he made a fair recovery, he began in the year 1872 to have symptoms of locomotor ataxy. A good deal of evidence was given at the trial by a number of medical men, including Mr. James Teevan, Dr. Habershon, Dr. Poore, Dr. Althaus, Dr. Banks of Dublin, Dr. Gordon of Dublin, Dr. Lockhart Clarke, Mr. Haynes Walton and Mr. Porter of Dublin, to show that locomotor ataxy was well developed in 1873, and continued progressively to get worse until his death, in 1877. All these gentlemen agreed in stating that it was exceedingly unlikely that Mr. Bagot could be the father of Mrs. Bagot's boy, and one went

so far as to declare that it was impossible. The medical evidence brought by the defendants was rebutted by that of Dr. C. B. Radcliffe. The jury at the first trial gave a verdict to the effect that Bagot was under a delusion with regard to the paternity of his child, and that when he made his will he was "not of sound mind, memory, and understanding." A new trial was ordered, but on the eve of its commencement the matter was settled by compromise, and Mrs. Bagot's boy will receive £25,000 instead of £10,000, and the bulk of the property will go to the testator's brother, in accordance with the terms of the will.

TEN YEARS' INFANT MORTALITY IN LARGE ENGLISH TOWNS.

IT is now ten years since the improved form of the Registrar-General's Weekly and Quarterly Returns first afforded uniform and detailed mortality statistics relating to twenty of the largest of our English towns. These returns, published during the past ten years, contain an aggregation of statistics bearing upon the rate of infant mortality in these twenty towns, which is full of interest for local sanitary authorities, and indeed for all concerned in the progress of public health. More than two and a half millions of births were registered in these twenty towns during the ten years; and it is scarcely a satisfactory commentary upon the care of infant life in them to know that 171 of each 1000 of the infants born in these towns during the ten years died before reaching the age of one year. In the whole of England and Wales, exclusive of these twenty towns, the rate of infant mortality did not exceed 139 per 1000 during the same period. It is some satisfaction to know, however, that this excess of infant mortality in our largest urban districts is beginning to show a considerable decline; the rate was equal to 179 per 1000 during the five years 1870–4, and declined to 164 in the more recent quinquenniad, equal to a decrease of 9·5 per cent. Infant mortality averaged 158 per 1000 in London, whereas it was equal to 184 in the nineteen provincial towns. On the other hand, the decline of infant mortality was much greater in the provincial towns than in London. Comparing the two most recent quinquenniads, the decline of infant mortality was but 3·7 per cent. in London, whereas it was 12·1 per cent. in the nineteen provincial towns. These figures afford but one of many signs of more successful sanitation in our provincial towns than in our huge and mismanaged metropolis. It will not be without interest to note the average rate of infant mortality during the past ten years in each of the twenty large towns. The rates per 1000 of births, ranged in order from the lowest, were as follow:—Portsmouth 141, London and Brighton each 158, Bristol and Plymouth each 160, Sunderland 166, Wolverhampton 167, Birmingham and Hull each 174, Sheffield 176, Oldham 177, Newcastle-on-Tyne 178, Nottingham 182, Salford 184, Bradford 187, Manchester and Norwich each 188, Leeds 192, and Liverpool and Leicester each 216. The constantly wide difference between the rates of infant mortality in Portsmouth and Leicester (141 and 216 per 1000) during the ten years under notice points to the existence of conditions unfavourable to infant life in Leicester which ought to be determined and removed. Whether the waste of infant life in Leicester be mainly due to causes which may be described as sanitary or social, they are causes distinctly within human control. Medical officers of health, however, constantly deplore their inability to reduce excessive rates of infant mortality; and it is impossible to doubt that in this department of sanitation much good would result from the formation of local sanitary associations, in which the help of educated women might be turned to good account in instructing their less informed and poorer sisters in the necessary improvement in the treatment and management of infants. We have noted that infant mortality has shown a marked decline during the past ten years, which may to some extent be due to the low rate of mortality caused by infantile diarrhœa during the cold summers of 1877 and 1879. The rate of decline, however, although general, was by no means uniform in the different towns. A comparison of the rates in the two past quinquenniads shows that the decline in Bristol and Plymouth did not exceed 1 per cent., and in Bristol 5·4 per cent.; while the decrease was equal to 15·2 per cent. in Bradford, 16·1 per cent. in Newcastle-on-Tyne, 19·6 per cent. in Liverpool, and 20·9 per cent. in Leeds. It is but natural that the largest decline should have occurred in those towns in which the greatest excess prevailed; but it is worthy of note that in Portsmouth, where the lowest rate of infant mortality existed in both the quinquenniads, the decrease in the more recent period was equal to 9·8 per cent. Infant mortality is pretty generally accepted as a sensitive test of sanitary condition, and it may therefore be hoped that statistics bearing on this subject will receive at the hands of health authorities more attention than they have hitherto commanded.

"LOOKING FORWARD" AND "LOOKING BACK."

THE ministry to minds diseased is a distinctly medical function, and there is a "preventive" aspect of medical psychology, not less important than the personal hygiene of the physical life. Nearly all the mental troubles that do not *directly* spring from organic disease—some of which may be reflexly the cause of physical changes in the cerebral and nerve structures they maltreat—are distinctly traceable to the effects of morbid imagining, and nearly all the disorderly mental processes of this class consist in unwisely "looking forward" or "looking back." Hope feeds on the future, and despair is poisoned by the dread of it. The misery of regret and disappointment is a creature of the past. The secret of health of mind and moral integrity consists in taking so firm a footing in the *present* that the mental equilibrium may not be easily disturbed. There is no need to ignore the lessons of the past, or to disregard the objects and obligations of the future, but it should not be forgotten that human life, with its opportunities, its duties, and its responsibilities, is an affair of *now*. We are led to offer this caution and recall the facts to memory because medical science has something to answer for in making men and women miserable by the discovery of incipient disease, which if simply unrecognised might in many instances have been harmless. The mental aspects of clinical practice are, we fear, too often left out of the count.

A LUNACY INQUIRY.

AN inquiry was opened at the White Hart, Brislington, near Bristol, on April 16th, before Mr. Nicholson, Master in Lunacy, and twenty-two jurors, concerning the state of mind of Charles Pierce Melly, formerly of Liverpool, but now an inmate of Dr. Fox's asylum at Brislington. The inquiry was promoted by Mrs. Melly, the wife of the alleged lunatic, who was represented by counsel. Mr. Melly conducted his own case, and in so doing effectually convinced the jury (after three days) that he was insane and incapable of managing his own affairs. The history of Mr. Melly's case, as elicited at the inquiry, was interesting and instructive. It appears that he had been a merchant in Liverpool, and was noted for his sound judgment in matters of business and his successful speculations. In the year 1879 he became rather reckless in money matters, quarrelsome with his friends, and otherwise eccentric. In July, 1879, he became possessed by delusions as to assassins haunting him, imagined himself a member of a secret society, and carried a revolver loaded with cotton-wool and butter, which he fired upon a person who came to serve him with a writ.

He was placed in the Liverpool Asylum in July, 1879, and transferred to the Brislington Asylum in the following month. The unhappy gentleman's conduct while examining and cross-examining witnesses was marked by much flippancy, sharpness, occasional wittiness, and now and then by violent expressions and actions. Notwithstanding his occasional sallies of mental sharpness, the jury had little difficulty in coming to their decision, and, but for the conduct of the lunatic himself, the inquiry would not have extended beyond one sitting. At one stage of the proceedings the patient caused much amusement by putting on the counsel's wig and gown, and refusing to part with them until a policeman was brought to try the effect of official persuasion.

TESTIMONIAL TO DR. THOMAS ANDREWS, F.R.S., OF BELFAST.

IN December last a committee was formed to obtain funds for the purpose of commemorating the retirement of this gentleman from the vice-presidency of the Queen's College, Belfast, and up to the present close on £1400 has been promised or received. It has been determined to place a portrait of Dr. Andrews in the institution with which he was for so many years identified, and, should the subscriptions permit it, to found a Scholarship in the college in connexion with chemical science. For these objects a sum of about £3000 will be required, and we have no doubt that the application of the committee for the remaining half of the necessary amount will be successful. Dr. Andrews formerly held the post of Professor of Chemistry in the Queen's College, Belfast, and, as our readers are no doubt aware, is a chemist of world-wide fame, having made some most important discoveries in connexion with this branch of science. It was at first uncertain whether a bust or portrait of Dr. Andrews would be presented to the college; but the subscriptions for the latter have been sufficient, and an artist has already been engaged to carry out the wishes of the donors in this respect.

SCARLET FEVER.

TWO reports have been issued by the Local Government Board—one by Dr. Thorne Thorne on an extensive outbreak of scarlet fever in Mr. Barnardo's village home for destitute girls, Barkingside, Romford, the other by Dr. H. F. Parsons on recent prevalence of scarlet fever in, and the general sanitary condition of the Bedlingtonshire Urban Sanitary District, Durham. In Mr. Barnardo's home, between the 28th December, 1879, and the end of the second week of February, 1880, not less than 150 cases of scarlet fever occurred among a population all told of about 440. The outbreak was singular in its mildness, not one fatal attack having occurred. Dr. Thorne writes in the highest terms of the sanitary conditions under which the children reside, and of the general excellent state of their health. The source of the original infection was not obvious, but it seems probable that it was derived from a parcel of clothing sent by way of gift to the Home from a family which had had scarlet fever within it. The earlier cases were so slight as to excite no attention, and hence the disease was disseminated largely before its existence was suspected.

Dr. Parsons was called upon to study scarlet fever in Bedlingtonshire under very different conditions. The locality is a colliery district, containing several large villages, which present those indications of sanitary indifference and negligence too generally characteristic of such villages. Here scarlet fever appears to be rarely if ever absent.

The two reports enable us to form a painfully vivid picture of the difficulties which beset a sanitary authority and its officers in their efforts to contend successfully with scarlet fever. In the one case the insidiousness of the infection of the disease in the beginning of the outbreak seems to set at fault preventive measures, however well contrived; in the other case the prospect appears to be equally disheartening from the difficulty of eradicating the conditions which appear to determine the persistent prevalence of the malady in the district. We want more light on the localities of permanent prevalence of scarlet fever in the kingdom and on the conditions determining this permanency there. The subject is one which might well enlist the careful attention of the Medical Department of the Local Government Board, and which deserves that attention.

FRACTURES OF THE NASAL BONES.

IN the March number of the *Annals of the Anatomical and Surgical Society of Brooklyn*, U.S.A., Dr. Mason has published a paper on "Fractures of the Nasal Bones." As a result of experiments on the dead subject he concludes that in all cases of fracture with depression of the nasal arch, the nasal processes of the two superior maxillæ are always broken, and on the same plane. After alluding to the difficulty of successfully treating these cases, and pointing out that the mucous membrane of the nose is so sensitive that it cannot bear the pressure of any cannula or compress sufficiently firm to raise and support the depressed fragment, he suggests a novel procedure of his own. It is to correct the deformity, and then pass a needle across the nose from side to side through the line of fracture. A small piece of ribbon or bandage is then placed across the nose and fastened over the ends of the needle. The needle may be withdrawn about the sixth day. If the line of fracture is not symmetrical, the bones are to be drilled at suitable spots. Unfortunately Dr. Mason omits to state whether he has ever tried his method of treatment.

WALSALL COTTAGE HOSPITAL.

THE Walsall Cottage Hospital, lately the scene of most of the labours and triumphs of "Sister Dora," is likely to become the arena of a contest between a number of the honorary medical officers on the one side, and the lay authorities and a "Sister" on the other. A circular, pointing out some of the defects of the medical management of the hospital, and suggesting appropriate remedies, signed by a large number of medical men interested in the institution, has been addressed to the subscribers. If we may accept the statement of the grievances as true, the recommendations are not only temperately made, but are cogently reasonable. Among other matters it is proposed first, that there shall be a house-surgeon, and that the surgical cases shall be treated by him, and be under his care, subject to the supervision of the members of the honorary surgical staff; second, that the duties of the sister shall be limited to the nursing and domestic departments. Equally just and rational seem to be the proposals, that each of the honorary surgeons be allotted a week for the reception of in-patients, and have assigned to him two days a week for seeing out-patients.

CHARGE OF STARVING.

MISS SCOTT, the keeper of a boys' school at Hastings, has been committed for trial on the charge of endangering the life of her servant-maid, named Hausoman, by giving her insufficient nourishment. Dr. Ashenden and Dr. Parsons were called to see the girl in March last, and they found her, in the house of her mistress, apparently dying of starvation. The emaciation was extreme. There was hectic fever, and the peculiar odour of starvation. She had had convulsions, and there was gangrene of one of the toes. The bed was wet through. The girl was altogether in a horribly neglected state. She has been removed to the workhouse, and has already picked up thirty pounds in

weight, although still too ill to attend before the magistrates to give evidence. Some details were given as to the amount of food provided for the inmates of Miss Scott's establishment, but these were inconclusive, and the defence is reserved.

THE BRADFORD FEVER HOSPITAL.

MR. RIX, the resident-surgeon of the Bradford Fever Hospital, has introduced a new kind of bath into that establishment, which, in these days of treating fever by cold bathing, bids fair to be a great boon to both nurses and patients. The bath, which used to be in a separate room, is now placed in the centre of the ward, the patients being wheeled up to it in their beds. It is so constructed that curtains can be easily erected and drawn, and privacy be thus secured. When not in use the bath is covered and converted into a table for the patients. The bathing of patients, which previously was attended by considerable difficulty to the nurse and some discomfort to the patient, has now become an easy and comfortable process, one which can be performed at any hour by a single attendant. The idea seems to us to be a good one, provided the waste-pipe and overflow-pipe of the bath have no connexion whatever with the sewers of the hospital.

MR. JOHN SIMON, C.B.

THIS gentleman has resigned his seat in the Council of the Royal College of Surgeons, to which he was elected in July, 1868, in conjunction with Mr. Holden (who now fills the President's chair) and Dr. Humphry of Cambridge. Mr. Simon was re-elected in 1876, and was elected President of the College in 1878. There will now be four vacancies in the Council to be filled up by the Fellows in July next—viz., one caused by the death of Mr. H. Hancock, and the resignation of Messrs. T. B. Curling, F.R.S., and G. Busk, F.R.S.

ON Wednesday, at the sitting of the Court of Appeal, at Westminster, Sir Hardinge Giffard, Q.C., applied to Lords Justices Brett, Cotton, and Thesiger, for an extension of time to enable him to move on behalf of the plaintiff in the action of Howell *v.* West and Jones, appealing from a judgment of the Queen's Bench, refusing a new trial on the grounds that the verdict at the trial before the Lord Chief Justice and a special jury at Westminster was against the weight of evidence, and misdirection. Their lordships granted the application.

THE condition of the public schools of New York appears to be attracting attention just now in that city. Some idea of the extent of the evils existing in those institutions, says *Gaillard's Journal*, "may be formed from the fact that in one school (in East Forty-second-street) at least five per cent. of the teachers are temporarily invalided; many of them suffering from diseases of the eye produced by too strong a light." The laws of health as regards ventilation and cubic space would seem also to be to a large extent ignored.

A MEETING of the Council of the Royal College of Surgeons in Ireland will take place on May 4th, to elect eight Examiners to examine for the Fellowship and Letters Testimonial, three to examine for the diploma in Midwifery, and a similar number to examine students as to their proficiency in General Education.

THE death is announced of Dr. Hamilton, late medical superintendent of the Leeds Union Infirmary. Dr. Hamilton, who resigned his post last year in consequence of illness, was on a voyage to Australia, when he was seized with an attack of congestion of the liver, which rapidly proved fatal. He was aged twenty-nine.

IN the Afghan war despatches, Surgeon J. Duke is mentioned as "conspicuous for his unremitting attention to the wounded under a heavy fire." Amongst the names of officers whose good services Brigadier-General Baker had "great pleasure in recording" appear those of Surgeon-Major C. A. Atkins, A.M.D., and Surgeon J. Lewtas, Corps of Guides.

THE proposed site of the infectious diseases hospital to be erected at Torquay appears to be exciting considerable opposition. Most of the objections urged, however, are such as would apply to any situation of a hospital of the kind with the needful accessibility from centres of population.

THE Lord Lieutenant of Ireland has appointed Mr. S. T. Gordon, A.B. T.C.D., L.K.Q.C.P.I., to be surgeon to the Royal Irish Constabulary, vice Mr. E. Leclerc, resigned. Mr. Gordon is a son of the late President of the College of Physicians of Ireland.

A TELEGRAM from Ekaterinoslav, published by the *Golos*, states that diphtheria is spreading in the Novomoscow district, and that hundreds of children have been attacked by the malady. A detachment of doctors and nurses has been despatched to the affected villages.

THE medical officer of health of Brighton has been instructed by the Sanitary Committee of the Town Council to take proceedings, under the Public Health Act, to compel owners of manufactories to adopt within one month the best means of preventing the emission of smoke from their works.

DR. W. H. BROADBENT will deliver the Annual Oration at the rooms of the Medical Society of London on May 3rd, at 8.30 P.M. The subject chosen is, "The Pulse and some of its Indications."

THERE is no foundation for the statement that diphtheria is epidemic at Chelmsford gaol. A single case occurred a few weeks ago, but probably the disease was contracted outside the establishment.

AMONG the candidates for the post of Medical Officer of Health for the Port of London are the following:—Dr. Domett Stone, Mr. Mantle, and Dr. Benjamin Browning.

A BILL has been introduced into the Californian Legislature to prohibit the payment of percentages on prescriptions to physicians by druggists.

THE accident to Dr. C. H. H. Sayre, to which we referred last week, has, we regret to state, terminated fatally.

IT is proposed to apply for a Government loan for the purpose of building an infectious disease hospital at Chatham.

THE vestry of Bangor have at last decided to establish a local Board of Health for the town.

MEDICAL EDUCATION IN INDIA.

WE have received, through the Surgeon-General of Bombay, copies of five addresses delivered by his Excellency Sir Richard Temple, the Governor of the Presidency—three of them to the native students at the Grant Medical College in 1878–79 and –80, and two to the students at the Medical Schools at Poona in 1878 and 1879. They are interesting as showing the progress which medical education is making in India, the views held respecting it by so able an administrative authority, and the practical interest he has taken in so important a subject.

From these addresses we learn that at the Grant College

two standards of medical education were recognised—the higher, for the licentiate and M.D. degree; and the lower comprising two branches, the apothecaries' class and the hospital assistants' class. The instruction in the hospital assistants' classes was given in the vernacular. The period of study for the higher stand extended over five, and for the lower over three years. During the famine in Bombay the want of subordinate medical officers was greatly felt; and, with a view to increase their numbers, it was then decided to create two medical schools—one at Poona and the other at Ahmedabad—for hospital assistant vernacular classes, which were thereafter to be discontinued in the Grant Medical College. The school at Poona was opened in 1878 and that at Ahmedabad in 1879, and both seem to give promise of answering the purpose for which they were created. The Grant College is now devoted entirely to the education of students for the higher standard. In his first address to the students, in 1878, Sir Richard Temple sketched out the intended changes above noticed, and justified the course adopted by Government of extending the lower standard of medical education by the circumstances of the country, the lamentable deficiency of educated medical practitioners, and the duty of saving the people from "the tens of thousands of quacks of various sorts and denominations who are obtaining employment," and to whom the native population naturally apply in the absence of qualified practitioners. "Unless we provide a proper and adequate medical staff and sufficient strength for the whole Presidency, we shall still leave the sick people at the mercy of those empirical remedies, of those quack medicines, of those remains of barbarous and antiquated superstitions which still exist in this country." Sir R. Temple looks forward to the period—apparently still far distant—when it will be possible to introduce into India laws to prevent the practice of medicine by unqualified persons. In the concluding portion of his address Sir Richard adverted to some of the weak points of the students, and inculcated upon them the necessity of acquiring promptness and decision in applying practically the theoretical knowledge acquired in the schools—firmness and nerve, combined with delicacy and precision of handling in surgery—courage and self-reliance in confronting prejudices, combating with ancient superstitions and bearing the frowns of their countrymen, and in fearlessly exposing themselves in the way of duty to the risks of infection and contagion—and, above all, enthusiasm in their work, the enthusiasm of humanity in preventing disease and assuaging suffering.

In his second address, delivered in 1879, Sir R. Temple took up the subject of preventive, as distinguished from curative medicine, and stated that it was probable that by comprehensive measures "80,000 deaths annually might be prevented, or rather deferred," in the Bombay Presidency. He dilated at some length upon the importance of hygienic education; registration of vital statistics; purification of the water-supply; examination of food, of air, and of dwellings; conservancy, including drainage; utilisation of sewage; sanitary engineering; vaccination; and prevention of contagious diseases; and impressed upon the students the necessity for continuing their studies of these important subjects after leaving the college.

In his third, and farewell address, Sir Richard, having on previous occasions discussed curative and preventive medicines, and, as he conceives, exhausted these topics, gave a brief *résumé* of the leading introductory lectures delivered at the principal medical schools in London in 1877–78 and 79, as reported in THE LANCET. Marking "the lofty tone, the comprehensive thoughtfulness, the moral earnestness, the philanthropic enthusiasm, and the truly religious sentiment by which they are pervaded." It appeared to him that the opinions expressed in them might with great advantage be brought under the notice of the students in the Grant College, and were well worthy of their thoughtful consideration.

It is gratifying to learn on such authority that medical education is receiving so much attention from the Government, and making such satisfactory progress in India. It is also matter for congratulation to find that so able an administrator and so hardly-worked an official as Sir R. Temple can find time, and has the inclination to direct his energies to the promotion of so important an object. A careful perusal of these addresses makes us feel regret that their author did not succeed in securing his election as a member of the new Parliament, where his services might have been of much value alike from his knowledge of Indian affairs and from the interest which he evidently takes in the promotion of sound medical education.

HEALTH OF LARGE ENGLISH TOWNS.

SIXTEENTH WEEK OF 1880.

THE excessive death-rates which have very generally prevailed in our large towns since November last have now declined, and the rate of mortality has fallen below the average. In twenty of the largest English towns, estimated to contain in the middle of this year seven and a half millions of persons, or nearly one-third of the entire population of England and Wales, 5510 births and 362 deaths were registered last week. The births exceeded by 325, while the deaths were 213 below, the average weekly numbers during 1879. The deaths showed a further decline of 205 of those returned in recent weeks, and were equal to an annual rate of 21·3 per 1000, against 24·9, 22·5, and 22·7 in the three preceding weeks. During the past three weeks of the current quarter the death-rate in these towns has averaged 22·2 per 1000, against 26·3 and 26·0 in the corresponding periods of 1878 and 1879. The lowest death-rates in the twenty towns last week were 13·6 in Portsmouth, 13·7 in Leicester, 19·0 in Brighton, and 19·6 both in Leeds and Bristol. The rates in the other towns ranged upwards to 24·9 in Norwich, 25·0 in Sunderland, 27·5 in Salford, 28·8 in Nottingham, and again the highest rate, 32·0, in the borough of Plymouth. The fatality of epidemic measles in Plymouth showed a further increase last week.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 445 and 449 in the two preceding weeks, were 455 last week. They included 132 from whooping-cough, 108 from measles, and 107 from scarlet fever. The annual death-rate from these seven diseases averaged 3·2 per 1000 in the twenty towns, and ranged from 1·5 to 1·6 in Brighton and Leeds, to 6·3 and 13·9 in Nottingham and Plymouth. Measles showed the largest proportional fatality in Plymouth, Nottingham, Oldham, and Sunderland; and scarlet fever in Sheffield, Norwich, and Salford. Eighteen more deaths resulted from measles in Plymouth, making no less than 231 recorded within that borough since the middle of November last. Nine more deaths were referred to fever, principally enteric, in Sheffield. Small-pox caused 15 more deaths in London, but not one in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had slowly increased from 167 to 178 in the three previous weeks, further rose to 187 on Saturday last; forty-eight new cases of small-pox were admitted to these hospitals during last week, against 42 and 44 in the two previous weeks. The Highgate Small-pox Hospital contained 26 patients on Saturday last, a further increase upon recent weekly numbers.

The fatality of lung diseases, which has shown so constant an excess during the past few months, is now rapidly declining. The deaths referred to diseases of the respiratory organs in London, which had been 395, 365, and 348 in the three previous weeks, further declined to 295 last week, and were 84 below the corrected average; 176 resulted from bronchitis, and 90 from pneumonia. The annual death-rate from diseases of this class was equal to 4·2 per 1000 in London last week; the rate from the same diseases in Liverpool was 6·2 per 1000.

THE ADELAIDE HOSPITAL, DUBLIN.—The annual meeting of the friends of this charity was held on April 20th. The report stated that the new buildings were opened in October last. The institution now practically consists o two distinct hospitals, the main building with the Madeleine wing being used for non-infectious medical and surgical patients, while a separate and isolated hospital has been erected for fever cases. These improvements have involved a large expenditure, so that a considerable debt has been incurred, and it has been found necessary to restrict the admissions to a less number of patients than the institution is capable of accommodating. This condition of things the committee trust the increased liberality of their fellow-townsmen will enable them to amend.

Correspondence.

"Audi alteram partem."

CHIAN TURPENTINE IN CANCER.

To the Editor of THE LANCET.

SIR,—Your remarks in THE LANCET of April 3rd, on the difficulty of procuring genuine Chian turpentine, and pointing out the unfavourable results which must occur in the treatment of cancer by the use of a spurious drug, appeared very opportunely; and I have reason to know that they were well received by the profession and the public, and that they effected the desired purpose by causing the profession to be specially solicitous to procure the genuine article. I regret, however, to find from numerous letters sent to me by medical men requesting my opinion as to the genuineness of drugs supplied to them, that it is necessary to further caution the profession against the practice of some druggists, who supply either a wholly factitious article, or a Chian turpentine adulterated with some other resin of an inefficient and sometimes of an injurious description.

Of the large number of specimens sent to me not more than five per cent. had any pretensions to be genuine. Some pills guaranteed to be prepared from the genuine drug were also submitted for my approval, and I found them to be prepared either from Venice, or strained crude turpentine. I have also had numerous letters from medical men asking to be informed whether a peculiar irritability of the skin with other symptoms resembling those of acute urticaria, were incidental to the administration of the remedy, and also inquiring as to the best method of treating the complication, and the means of preventing it, as it interfered materially with the progress of the treatment. Other patients having derived no benefit from a remedy given, although fairly tolerated, it was proved that they were not taking the genuine turpentine. I may state that I have never found the symptoms above-mentioned to be produced by the administration of the genuine remedy, and I have no hesitation in stating that when they do appear they are an indication of an impure drug being given. The violet-like odour of the urine always becomes manifest on the administration of the impure drug, but I believe that it is invariably absent when the genuine drug is taken. If there is odour of the urine at all, it is much milder, and of a more fragrant character.

It is self-evident that the substitution of an impure drug has a tendency to bring the treatment into discredit, besides being a positive cruelty to the patients. It is possible that the lavish supply of the impure article at extravagant prices may have arisen from ignorance on the part of the druggists of the properties of true Chian turpentine, as I am unwilling to believe that their commercial morality is so lax as to induce them deliberately to substitute an impure turpentine for the pure article.

I may add that, as the purity of the drug is an essential condition of successful treatment, I cannot hold myself responsible for the validity of many of the trials which are now being made, nor can I admit that they constitute a fair test of the new method of curing cancer.

I am, Sir, yours, &c.,

Birmingham, April 27th, 1880. JOHN CLAY.

To the Editor of THE LANCET.

SIR,—On 27th March, 1880, you published a most interesting article upon the Treatment of Cancer of the Female Generative Organs by a new method, which method appears to be by the internal exhibition of Chian turpentine. Pereira makes the obtaining of this drug as exceedingly problematic. Fifty years ago, in the drug market, it was seldom ever seen, yet it was rarely sold as a *manufactured* article on the spot, mostly Venice turpentine being one of the articles used, in its spurious manufactory. I have been lately obliged by a letter from Horner and Son, by Mr. Bowdas, dated April 5th, 1880, to the effect that no true Chio was to be had. There is a great demand for it, and the firm had written abroad for some. I procured some very old Chio turpentine, and Professor Rodgers supplied the following analysis:—

Resin and volatile matter	98·06
Ash, after burning	1·94
Composed of	
Silica	·78
Alumen, iron, and silicate of iron ...	·029
Lime	·52
Residuum, chiefly fine sand	·62
	1·949

Mr. Kensington, in his Compilation of Analyses, gives the *ash* of the seed of the Strasburg turpentine, or the Abies picea, as follows:—

Potash	21·75
Soda	6·76
Magnesia	16·7
Lime	1·54
Phosphoric acid	39·65
Silica	11·71
Peroxide of iron	1·31
Chloride of sodium	·57

Both these analyses show silica in considerable quantity, and if it cannot be procured in sufficient amount, I recommend in its place the use of the Strasburg turpentine.

In 1874 I published in the *Edinburgh Medical Journal* a short essay upon the medicinal properties of silica in cancer, &c., having had considerable experience in that disease. I only had one case which responded to treatment so quickly as Professor Clay's, but the patients have been well two, four, and ten years, with no return. The real efficacy of silica lies, however, not in its promoting *cure*, but in its giving freedom from *pain*. Now and then it cures, not always, and located in any part; but on true medullary cancer it appears to have little power, except that it appears to change somewhat the character of its structure first. The form I employ is that of lozenges, and by their being artificially prepared, I, of course, know how much resin, lime, silica, &c., each contains, but given in organic preparations the amount is very uncertain.

I will conclude this letter with a short extract:—"The quantity of silica, when used artificially, being two grains in the twenty-four hours, is much larger than that introduced by drinking two or more pints of Messisquoi or Bethesda waters daily. But it must be borne in mind that iron or sulphur, taken as natural chalybeates or alterative waters, give much greater results than the same ingredients and the same proportions prepared artificially, probably because they are more soluble and better adapted to enter into the circulation when prepared naturally than they are when prepared artificially; but however the matter is explained, about the result there can be no doubt, that a one-tenth part supplied from Nature's laboratory is equal to *one* part prepared artificially."

I am, Sir, your obedient servant,

South Belgravia, April 7th, 1880. RICHD. F. BATTYE.

THE CROTON-OIL TREATMENT OF RINGWORM.

To the Editor of THE LANCET.

SIR,—I have read with much interest Mr. Alder Smith's and Mr. Cottle's communications on the treatment of ringworm by croton oil. No doubt the system of producing inflammation in the skin by counter-irritants sufficient to overcome the pre-existing disease is a good one, and was taught by the late Mr. Startin many years ago, but I think these gentlemen carry their treatment almost too far, for I have seen cases of ringworm in which croton-oil liniment, carbolic acid, oleate of mercury, and other powerful irritants, have produced most painful sores and nasty ulcerations. Indeed, I have had a few cases brought to me in this state, and I cannot help thinking the treatment is somewhat heroic to young patients.

In some hundreds of cases of ringworm that have come under my notice the last few years, I find that much milder irritants will, I may say always, effect a cure, no matter how chronic the disease, and some I have seen of years' duration yield to a simple and careful treatment. For instance, careful washing the scalp night and morning with soft soap, and, if there

is already suppurative inflammation, soft soap mixed with yelk of egg, and the nightly inunction of an ointment of white precipitate, twenty or thirty grains to the ounce of vaseline or benzoated lard; and, in the more chronic cases, daily brushing into the roots of the hair a modified "Coster's paste" (composed of iodine pigment, three drachms; creasote, half an ounce; oil of cade, half an ounce) is always effectual, at least in all the cases I have had to treat, and I do not know that I have lost sight of many that were not quite relieved.

Dr. Alder Smith desires to draw attention to the "efficiency of the croton-oil treatment in the production of kerion as a certain and speedy cure in the most inveterate forms of the disease." It would be interesting to know how soon a cure is effected by this treatment. I find it is a difficult thing to give a certain prognosis of cure under *two* or *three* months at least—that is to say, the complete destruction of the parasite, and a healthy growth of new and sound hair.

I am, Sir, yours truly,

Sackville-street, April 26th, 1880. JAMES STARTIN.

To the Editor of THE LANCET.

SIR,—As Mr. Smith's letter in reference to the above subject, in this week's LANCET, may possibly lead to misapprehension of the principles of treatment of ringworm I have endeavoured to indicate, may I be permitted to repeat that an essential part of my plan is that in certain conditions of chronic ringworm, it is advisable to produce an inflammation involving the tissues at least to the depth of the hair-follicles. To be one of the means of effecting this a crop of pustules must fulfil the conditions named in my letter in THE LANCET of April 17th.

I am, Sir, your obedient servant,

WYNDHAM COTTLE, M.B. Oxon., F.R.C.S.

Savile-row, W., April 24th, 1880.

TRANSVERSE DEPRESSIONS ON THE NAILS.

To the Editor of THE LANCET.

SIR,—The note that you recently published, giving an account of an instance of arrested nutrition of the nails during illness, was brought to the notice of a gentleman who having himself afforded an example of this curious appearance, has sent me an account of his own case. Although not a medical man his description is careful, and affords evidence of accurate observation.

In August, 1878, when forty-nine years of age, he was seized with a severe illness; he was unconscious for three days, his life being despaired of, but eventually he made a good recovery, being in bed only for a month. Shortly after the attack it was observed that there was a groove on all the nails, both of the hands and the feet, neither the patient nor those about him having ever heard previously of such an occurrence. The foot marks disappeared first, but the lines on the hand-nails were not cut away until nine months had elapsed. The length of time occupied by the marks on the foot-nails until they advanced to the edge of the nail was not noted. My correspondent informs me that he has a good circulation, that he usually covers his feet warmly, but does not cover his hands, and that his nails and hair grow with unusual slowness.

The points to be noted in this case are first, the fact that the groove on the nails of the hand may persist for nine months (an unusually long time, so far as our present data teach us) before it is finally lost; and secondly, that, contrary to what Dr. Beau leads us to look for in such cases, the mark on the toe-nails disappeared first.

I am, &c.,

Queen Anne-street, W., April 13th, 1880. G. THIN, M.D.

"HERPES GESTATIONIS."

To the Editor of THE LANCET.

SIR,—The cases of "Herpes Gestationis" narrated by Dr. Stanley Gale in THE LANCET for April 17th appear to illustrate some points of interest in the physiology of the reproductive system.

In each instance the eruption began to appear shortly before delivery (three or four days); recurring with several pregnancies. It may be regarded as precisely analogous to—indeed is in some respects identical with—eruptions which in many women almost invariably precede the menstrual flow: they are the ectodermic manifestations which in a more or less pronounced manner accompany menstruation; and they exemplify the grand law of periodicity which pervades that function.

These dermic changes may aptly be likened to the moulting of birds, and other of the lower creatures; indeed, being sexual, they are truly analogous. Every woman who menstruates displays more or less epidermic change at the "periods;" and if closely observed will show either (*a*) increased pigmentation of the skin and its appendages—e.g., freckles, areolæ of nipples, hair—or a little acne, herpes, urticaria, eczema, or altered sweat (ectodermic), or (*b*) coryza, bronchial catarrh, or mucous flux from the bowel, with, in rare cases, casts: (endodermic). (Parenthetically it may be said that casts of the bowel are met with about nine times more frequently in women than in men.)

This and other kindred, but as yet imperfectly observed or understood, points relating to the physiology and pathology of menstruation, I hope, with your permission, to discuss more at large in your pages through my course of systematic lectures about to be delivered.

I have the honour to be, Sir, your obedient servant,

ALFRED WILTSHIRE, M.D., F.R.C.P.

Wimpole-street, W., April 19th, 1880.

RELIGIOUS LIBERTY IN TURKEY AND IN ENGLAND: A CONTRAST.

To the Editor of THE LANCET.

SIR,—Will you allow me to make a few observations on the letter of "J. B. B.," under the above heading in your impression of April 24th.

In the first place I would observe that religious equality was first proclaimed in Turkey in 1839 in the Tanzimat, but the declaration (repeated in 1856) has always remained a dead letter, which "J. B. B." would find to be the case were he a rajah. But the cases cited are not parallel. King's College never did proclaim religious equality. It was established on religious principles, just as University College and the London University were established on secular principles.

I am sure that Mr. Tweedy would find no Government post barred to him on account of his religion, whatever that may be. If such were the case he would have a just cause of complaint, and might then compare the declarations of the Sublime Porte (untruthful as they are) with the practice of the British Government.

I am, Sir, yours, &c.,

Athenæum Club, April 27th. HUMPHRY SANDWITH.

SALICYLATE OF QUININE.

To the Editor of THE LANCET.

SIR,—For the benefit of those who are wishful to try the effects of the above in rheumatism, I append a formula (of my own), which I have used with benefit for some time:—Salicylic acid, one drachm; disulphate of quinine, ten grains; simple syrup, one ounce; strong liquor ammoniæ, one drachm; water, to twelve ounces. The mode of mixing to be adopted is as follows: put the acid and quinine together into the phial, with about eight or nine ounces of water, agitate briskly for a few seconds, let the mixture stand a little while uncorked, then add the liquor ammoniæ, again agitating, then the syrup and the remainder of the water. A few drops more of the ammonia may be required to get a perfectly clear solution. I have found the addition of tincture of digitalis at times advantageous.

I am, Sir, yours truly,

JOHN DEARDEN, F.R.C.S.

Church, near Accrington, April 7th, 1880.

THE LONDON HOSPITAL.—The committee representing employés of the Great Eastern, London, Tilbury and Southend, and North London Railways announce that the next annual ballad concert, in aid of the funds of the London Hospital, will take place at St. James's Hall on Tuesday, May 4th next.

Obituary.

DR. HEATON, F.R.C.P., OF LEEDS.

VERY many of our readers will have shared the sincere regret with which we announced the death of Dr. John Deakin Heaton, after a very brief illness, in the 63rd year of his age.

On the afternoon of March 24th he attended a meeting of the committee of the Yorkshire College, but left before the business was concluded. Feeling cold, he walked quickly to another public meeting, but still complained of chilliness, and went home to bed suffering, as was soon ascertained, from an attack of pneumonia, to which he succumbed at five o'clock on the morning of March 29th. During the brief period of this last illness he was attended by the principal members of the profession in Leeds, including Dr. Eddison, Dr. Allbutt, Dr. Barrs, (house physician at the General Infirmary), and Mr. Pridgin Teale.

Dr. Heaton was a native of Leeds, and was educated at the Grammar School there, and subsequently at the Leeds School of Medicine and at University College, London. At the former of these institutions he gained five medals in as many different subjects, and in the latter the same number of prizes, including the gold medal in Medicine and the Fellowes gold medal for Clinical Medicine. He also carried off the silver medal awarded by the Apothecaries' Company for Botany—open, as our readers are aware, to all medical students. In the examination for the M.B. of the University of London he obtained the gold medal in Botany and other honours, and in the M.D. examination in 1843 he received the gold medal for the best commentary on a case in medicine, and the "Certificate for Special Proficiency in Medicine." In 1842 he spent some time in Paris, attending the medical practice of the hospitals, and after a long Continental tour he commenced practice in Leeds, where he thenceforth continued to reside.

Thus qualified, it was but natural that he should early become associated with the Medical School of Leeds; he first lectured there on Botany, then on Materia Medica, and subsequently on the Practice of Medicine—the last for more than twenty years; and he also held the responsible office of treasurer to the Council of the School, of which he was three times president. He was successively elected physician to the Dispensary and the Fever Hospital—during his connexion with which he had two severe attacks of fever—and to the Leeds General Infirmary. In 1849 he was elected a Medical Fellow of University College, and in 1868 had the honour of becoming a Fellow of the Royal College of Physicians. He was also a Fellow of the Royal Medico-Chirurgical Society and of the Medical Society of London, and was the contributor of various papers to the several medical and literary periodicals.

Besides his professional labours, Dr. Heaton took an active part in most of the educational and benevolent institutions of the town: for four years—1867 to 1870—he was president of the Philosophical Society, and for many years its honorary librarian. He was also Chairman of the Committee of the Yorkshire Board of Education, and member of the first School Board for the borough; as a Justice of the Peace for the West Riding, he was energetic in the magisterial work of his district. He was, besides, a trustee of funds for charitable uses (well known as the "Pious Uses Trust"), was honorary physician to the Tradesmen's Benevolent Institution, to the Unmarried Women's Benevolent Institution, and the Leeds Town Mission; consulting physician to the Women and Children's Hospital; and one of the trustees of several of the livings of Leeds.

But the institution with which Dr. Heaton's name will be the most permanently and gratefully remembered is the Yorkshire College for the Promotion of Science and Literature: from 1869, when, as chairman of the Executive Committee of the Yorkshire Board of Education, he first took up this idea, he steadily worked for the furtherance of the plan, until in 1875 the College was inaugurated, and it is now firmly established as one of the great permanent institutions of the district, having an estate and buildings of its own, and a large staff of able professors. In recognition of these services to education, the Clothworkers' Company of the City of London conferred upon him the honorary membership of their company, and at the same time he was admitted a citizen of London.

The list of the offices and posts of responsibility and honour which he filled prove that there was ample grounds for the high esteem in which Dr. Heaton was held by his fellow-townsmen and the public generally. It may be said, indeed, that he attracted to himself in a singular manner the confidence of those around him; his extensive knowledge and his aptitude in bringing that knowledge to bear, his cultured mind, his great experience, his clearness and soundness of judgment, and the unflagging diligence (one of his special characteristics from boyhood) he showed in discharging any duty which he undertook, making him a most valuable counsellor and assistant in all the matters which were brought under his notice. His loss will be long and greatly felt in connexion with many of the most important public institutions of the district.

The funeral of Dr. Heaton took place on April 2nd, and, under the circumstances which we have stated, it is not surprising that the sad occasion brought together such a numerous gathering of mourners as has rarely been seen at the graveside of one of our *confrères*, for it included not only his personal and professional friends, but great numbers of others, amongst whom were most of the leading inhabitants of Leeds and its vicinity.

EDWARD JACOMB ASBURY, M.R.C.S. ENG., &c.

MR. EDWARD JACOMB ASBURY died on April 1st, 1880, at East Retford, Notts, aged fifty years, from apoplexy. He was the fourth son of the late Jacob Vale Asbury, Esq., surgeon, of Enfield, Middlesex, with whom he was in extensive practice for some years. Afterwards he succeeded to the practice of the late Dr. Allison of Retford, Notts, where he carried on a large and select practice up to the time of his death. He held the appointment of medical officer of health. He gained much experience during the Crimean war, and when at Westminster and Enfield, during a severe epidemic of cholera, was appointed surgeon to a district, which task he performed with unceasing energy and the greatest kindness to the sufferers. His loss is deeply regretted by his patients and a large circle of friends. He leaves five children under age.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were elected Fellows of the College on Thursday last:—

Barlow, Thomas, M.D. Lond., Montagu-street.
Coupland, Sidney, M.D. Lond., Nottingham-place.
Dickinson, Edward Harriman, M.D. Edin., Liverpool.
Donkin, Horatio Bryan, M.B. Oxon., Upper Berkeley-street.
Fox, Cornelius Benjamin, M.D. Edin., Chelmsford.
Goodhart, James Frederick, M.D. Aberd., Weymouth-street.
Kelly, Charles, M.D. Lond., Worthing.
King, Robert, M.B. Camb., Harley-street.
Mahomed, Frederick Henry Horatio Akbar, M.D. Brussels, St. Thomas's-street.
Shaw, Thomas Claye, M.D. Lond., Banstead Asylum, Surrey.
Tophan, John, M.D. Lond., Collingham-road.

The following gentlemen having passed the required examination, were admitted Members on the same day:—

Dunbar, James John Macwhirter, M.B. Lond., Ladbroke-grove.
Lubbock, Montagu, M.B. Lond., Foulis-terrace.
O'Connor, Bernard, M.D. Queen's Univ., Brook-street.
Tirard, Nestor Isidore Charles, M.B. Lond., King's College.
Whittle, Ewing Mould Glynn, M.D. Dub., Cambridge.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on April 22nd:—

Barratt, Herbert James, Bedford.
Benson, Alfred, Settle, Yorkshire.
Davis, William George, M.D. Pennsylvania, Philadelphia.
Frampton, T. H. Trevethan, Gloucester-terrace.
Hockridge, Thos. Granville, M.D. M'Gill Univ., Westbourne-pk.
Parkes, Louis Coltman, Weybridge, Surrey.
Perkins, G. C. Steele, Exeter.
Permewan, Arthur Edward, L.S.A., Redruth, Cornwall.
Reid, Norman Macbeth, Croydon, Surrey.
Rowlands, Hugh Pugh, L.S.A., Bryngwyn, Towyn.
Vise, Christopher, Holbeach, Lincolnshire.
Wheeler, Albert, L.S.A., Southsea, Hants.
Whiting, John, Beccles, Suffolk.

Of the 74 candidates examined during last week, 44 passed to the satisfaction of the Court and obtained their diplomas; 5 passed in Surgery, and when qualified in Medicine will be admitted Members; the remaining 25 failed to reach the required standard, and were referred for six months' further professional study. Eight candidates who had passed in Surgery at previous examinations, having subsequently obtained a medical degree or licence recognised by the College, were also admitted Members.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at Meetings of the Board of Examiners on April 26th, 27th, and 28th:—

John R. S. Robertson, William B. Benjafield, George A. Atkinson, James G. Houseman, Bernard L. Mills, James D. Dunlop, Edward R. C. Walker, Herbert H. Ashdown, Ernest E. Maddox, John L. Gibson, and Samuel Macken, Edinburgh; Charles H. Evers and Charles S. Blair, Newcastle-on-Tyne College of Medicine; Thomas H. Williams and Charles S. Young, Glasgow; William H. Wilcock, Anthony A. Ward, John H. Naylor, William J. Waddington, and George F. S. Arthy, Leeds School of Medicine; William E. Bradley, John Rodley, William H. Winder, and Herbert E. Ellin, Owens College, Manchester; Frederick A. Saunders and William A. Martin, Liverpool; Henry L. Jones, Cambridge and St. Bartholomew's Hospital; William W. Banham and George R. Beardmore, Sheffield School of Medicine; George J. Myles, Bristol; Frank J. Allen, Cambridge; Daniel Riordan, Queen's College, Galway; G. N. Cornish, King's College; John E. Buller, John Hoole, M. Carrington Sykes, and Robert W. Jalland, St. Bartholomew's Hospital; George T. Lee and Ernest F. Grose, University College; Frank T. Frampton and John H. Spitzly, St. Mary's Hospital; Hugh Heald, Liverpool; Alfred de Winton, Guy's Hospital; Thomas Taylor, Middlesex Hospital; Arthur de C. Scanlan, Westminster Hospital; John Orford, St. Thomas's Hospital.

UNIVERSITY OF DURHAM. — At the Easter Term, 1880, the following gentlemen passed the First Examination for the degree of Bachelor of Medicine, held at the College of Medicine, Newcastle-upon-Tyne, on April 19th, 20th, 22nd, and 23rd:—

Baker, John Hopper.
Brett, James, M.R.C.S., L.S.A.
Coley, Frederic Collins, L.R.C.P., M.R.C.S.
Hamilton, George Clarendon.
Lee, Henry Boynton.
Mears, Frederick Charles.
Mears, William Pope, M.R.C.S., L.S.A.
Robinson, Alfred.
Rowell, Robert Henry.
Sheppard, William John.
Smith, William Harvey, M.R.C.S.
Wheatley, Arthur William.

Four candidates were referred in all subjects. One candidate was referred in Botany, and one in Chemistry.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 22nd:—

Breach, James Henry, Yattenden, Newbury, Berks.
Gibbs, Alfred Napier Godby, Clifton, Bristol.
Morris, Edgar Freeman, St. Owen's-street, Hereford.
Pitman, William Weston, Acacia House, Highgate.
Spackman, Henry Robert, Pennfields, Wolverhampton.
Thomson, Thomas, Approach-road, Victoria-park.

The following gentlemen on the same day passed the Primary Professional Examination:—

George Milner Cole, St. Bartholomew's Hospital; Joseph H. Surtees Sumner, London Hospital.

At the Preliminary Examination in Arts held at the Hall on April 23rd and 24th, 137 candidates presented themselves, of whom the following passed and received certificates of proficiency in General Education:—

FIRST CLASS (in order of merit).—1st: T. H. Fisher. 2nd: Mary Emily Dowson. 3rd: W. Lansdale. 4th: E. H. O. Little and Arthur William Jones. 6th: Edward Felix, H. J. Hawthorn, and J. Martyn.

SECOND CLASS (in alphabetical order).—F. W. Abbott, B. Badcock, J. S. Batchelor, G. H. Bate, G. P. Bott, N. J. N. Bray, Samuel J. Brooks, F. St. John Bullen, C. Burland, H. L. Cade, J. W. Cafferata, J. S. Caskey, H. W. Chambers, J. C. Christie, W. A. Clarke, John Crisp, F. Evered, E. C. Featherstone, W. J. Fern, Octavius S. Fisher, H. Fox, C. B. Francis, R. Freeman, G. F. C. Gardiner, J. Girvin, T. W. Gibbard, C. B. Gilson, W. H. Godfrey, W. H. Hall, F. W. Hamp, C. J. Heath, T. S. Heaton, A. B. Holberton, W. J. Hosford, W. W. Howard, H. L. Hudson, W. A. Jacobson, T. G. Lavis, J. L. Lewis, G. C. Macdonald, A. A. Macfarlane, J. G. Mackay, F. W. Metcalfe, Anne Emily Mills, W. A. Mushet, F. Nuttall, R. Pinhorn, R. H. F. Routh, Agnes Russell, D. S. Saunders, F. A. Saw, Albert W. Smith, Cecil Smith, J. Baker Smith, Robert E. Smith, Sophia Emilia Smith, C. F. White, J. R. Williams, W. R. Wolfe, Edwin P. Wright, Sydney C. E. Wright, and R. B. Wyeth.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW. — The following gentlemen passed the Final Examination for the Surgical qualification at the April examination:—

Hodge, James, Dundee.
Stewart, James, Kirkintilloch.
Young, Patrick R., Bebington.

The following passed the First Professional Examination:—

James Gillies, John Humphreys, David Forsyth, Archd. S. Macphail, Henry Jones, John Aitken, Sheridan Dean, Charles Jackson, and John S. Forrest, all of the Glasgow School; Jos. Givan, Belfast School; Jos. H. Wallis, Dublin School.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The following passed the Final Examination for the Edinburgh and Glasgow Double Qualification at the examination held on April 12th and following days:—

Brandreth, Charles L., Blackpool.
Thornley, Joseph, Bolton.
M'Ilwraith, Samuel, Glasgow.
Wallace, Robert, Glasgow.
Hyrons, Ernest Augustus, Glasgow.
Milroy, James, Glasgow.
Peck, John Huntly, Glasgow.
Passmore, Vincent Adolphe, Dublin.
Till, George William, Glasgow.

The following passed the First Professional Examination for the Double Qualification at the April examination:—

G. B. Buttery, Ed. A. Cook, James Gilroy, Charles A. Gray, M. H. Guest, John Lyon, John Macdonald, A. R. Mathieson, Henry Oakes, and A. W. White, all of the Glasgow School.

ROYAL COLLEGE OF SURGEONS IN IRELAND. — At a meeting of the Court of Examiners recently held the undermentioned obtained the Fellowship of the College:—

Banks, Samuel Henry (Surgeon-Major).
Potter, Henry (Surgeon-Major).

ALDERMAN WHITAKER, M.D., has been placed on the Commission of the Peace for the borough of Belfast.

FLEET-SURGEON W. PATRICK has been appointed to the *Britannia*; Staff-Surgeon T. Browne to the *Royal Adelaide*.

DR. SHELTON, Principal Medical Officer at the Garrison, Halifax, Nova Scotia, is about to vacate that post, having received orders to proceed to Aldershot.

A COMBINED meeting of the North Western, Northern Counties, and Yorkshire Associations of Medical Officers of Health will be held in Leeds, on Friday, May 7th.

ON Wednesday evening the thirty-fifth annual dinner of the German Hospital at Dalston was held at Willis's Rooms, the Duke of Connaught presiding. The subscriptions announced were about £3650.

AT the quarterly meeting of the Naval Medical Compassionate Fund, held on the 13th instant, Dr. H. J. Domville, C.B., Inspector General, in the chair, the sum of £70 was distributed among the various claimants.

THE thirty-second anniversary of the City of London Hospital for Diseases of the Chest was celebrated on Wednesday at the Cannon-street Hotel, under the presidency of Mr. C. T. Ritchie, M.P., when the subscription list amounted to about £1000.

THE Local Government Board have notified to the Local Authorities their intention to issue an order for the amalgamation of the township of Bredbury and Romiley, in the Stockport Union, for Local Government purposes, from the 29th of September next. This is in answer to a requisition from the people of Romiley, who were otherwise unable to obtain efficient means of drainage and water supply.

EARLSWOOD ASYLUM FOR IDIOTS.—The friends of this excellent institution held their thirty-third annual festival on April 22nd. The Earl of Rosebery presided over a large and influential company on the occasion. It is satisfactory to learn that the asylum, which contains 565 inmates, collected from all parts of the kingdom, is now free from debt. Subscriptions to the amount of £2047 were announced by the secretary in the course of the evening.

UNIVERSITY OF LONDON.—The following examiners for 1880-81 were elected at a meeting of the Senate held on Wednesday:—Practice of Medicine: W. H. Dickinson, M.D.; and C. Hilton Fagge, M.D. Surgery: John Cooper Forster, M.B.; and Prof. John Wood, F.R.S. Anatomy: Prof. John Curnow, M.D., and Prof. Redfern, M.D. Physiology: Philip Henry Pye-Smith, M.D., B.A.; and Prof. J. Burdon-Sanderson, M.D., LL.D., F.R.S. Obstetric Medicine: J. M. Duncan, M.D., LL.D., F.R.S.E.; and Henry Gervis, M.D. Materia Medica and Pharmaceutical Chemistry: Prof. E. B. Baxter, M.D.; and F. T. Roberts, M.D., B.Sc. Forensic Medicine: Prof. Ferrier, M.D., M.A., F.R.S.; and Thomas Stevenson, M.D.

ROSTREVOR WATER SUPPLY.—A scheme for the water supply of this town has been approved of by the Local Government Board for Ireland, and the works will be commenced without delay.

ROYAL HOSPITAL FOR INCURABLES.—The annual festival of the friends and supporters of this hospital was held on April 23rd. A new wing has been built at one end of the building, and it is proposed to erect another wing at the opposite end. At present the number of inmates is 183, and of pensioners 419. The cost of maintaining the former was last year a little over £10,000, whilst the pensions amounted to £8000 a-year. The appeal of the chairman resulted in subscriptions amounting to £4300.

SOUTH LONDON SCHOOL OF PHARMACY.—The medals and certificates for the term ending 15th April were presented by the secretary on the 17th April to the following successful competitors:—Senior Chemistry: medal, Mr. Price; certificate, Mr. Carruthers. Junior Chemistry: medal, Mr. Hill; certificate, Mr. Waring. Materia Medica: medal, Mr. Williams; certificate, Mr. Horne. Botany: medal, Mr. Walkley; certificate, Mr. Waring. Pharmacy: medal, Mr. Waring. The secretary's prize, for Organic Chemistry, was presented to Mr. W. Williams.

DONATIONS TO MEDICAL CHARITIES.—Mr. W. C. Jones of the Elms, near Warrington, has given £500 to the Infirmary of that town. The Grocers' Company have given £100 to the North London Hospital for Consumption at Mount Vernon, Hampstead. Messrs. Coutts and Co. have given an additional 30 guineas to the Royal National Hospital for Consumption and Diseases of the Chest at Ventnor. Captain Charles George Hammond, 16th Lancers, of Brighton, bequeathed £150 each to the Lock Hospital and St. George's Hospital. The Duchess of Norfolk has given £100 to Queen Charlotte's Lying-in Hospital. The Charing Cross Hospital has received £100 each from Mr. Philip D. Tuckett and Mr. R. C. L. Bevan.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ATTHILL, R. C., L.R.C.S.Ed., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer for the Parish of St. Osyth, in the Tendring Union.

BERRY, W., M.R.C.S.E., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Honorary Medical Officer to the Royal Albert Infirmary, Wigan, vice Hart, resigned.

BLYTHMAN, C. S., M.B., C.M., M.R.C.S.E., has been reappointed Medical Officer of Health for the Swinton Urban Sanitary District. £30 per annum.

BOND, W. J., M.B., L.R.C.S.Ed., has been reappointed by the Aylesbury Rural Sanitary Authority Medical Officer of Health for No. 7 District. £15 per annum.

BOULTER, Mr. W. E., has been appointed Assistant Medical Officer for the Workhouse and Infirmary of the Woolwich Union.

BURMAN, J. W., M.D., L.R.C.S.Ed., has been appointed Medical Officer to the Barnsbury District of the Hungerford Union.

CEELY, R., F.R.C.S.E., L.S.A.L., has been reappointed by the Aylesbury Rural Sanitary Authority Medical Officer of Health for No. 3 District. £12 12s. per annum.

CHURTON, T., M.D., has been appointed Honorary Physician to the Leeds General Infirmary.

CLARKE, J. St. Thos., M.B., F.R.C.S.E., &c., has been appointed Honorary Surgeon to the Leicester General Infirmary.

CONRY, J. T. C., L.K.Q.C.P.I., has been appointed Medical Officer to the Salford Union Workhouse, vice C. A. Mercier, M.B., resigned.

DALTON, N., M.R.C.S.E., has been appointed Resident Medical Officer to Queen Charlotte's Lying-in Hospital, vice T. L. Browne, M.R.C.S.E., resigned.

DENNY, C. J., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator to the newly-formed District of Blackwater and Eversley. Also reappointed Medical Officer of Health to the Hartley Wintney Union Rural Sanitary Authority.

DE WOLFE, G. H. H., M.D., has been appointed Honorary Physician to the Sheffield Public Hospital for Diseases of the Skin.

DUNSMURE, J., M.D., has been appointed Examiner in Clinical Surgery in the University of Edinburgh, vice T. Keith, M.D., resigned.

HAMES, G. H., F.R.C.S.E., has been appointed House-Surgeon to the Western General Dispensary, vice S. J. Knott, resigned.

HARDWICKE, H. J., M.D., M.R.C.P.E., has been appointed Honorary Physician to the Sheffield Public Hospital for Diseases of the Skin.

HAZARD, J., M.R.C.S.E., has been appointed Honorary Surgeon to the Sheffield Public Hospital for Diseases of the Skin.

HEX, H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Assistant-Surgeon to the City Provident Dispensary and Surgical Appliance Association, vice P. R. Webb, L.R.C.S.I.

HOOPER, C., M.R.C.S.E., L.S.A.L., has been reappointed by the Aylesbury Rural Sanitary Authority Medical Officer of Health for No. 1 District. £18 per annum.

IRELAND, Mr. A., has been appointed Resident Medical Assistant at the Aberdeen Royal Infirmary.

KNOTT, S. J., M.R.C.S.E., L.S.A.L., has been appointed Surgeon-Accoucheur to the Western General Dispensary.

LEE, R., M.R.C.S.E., L.S.A.L., has been reappointed by the Aylesbury Rural Sanitary Authority Medical Officer of Health for No. 6 District. £18 per annum.

LEITCH, J., M.B., C.M., has been appointed Medical Officer of Health for the Holme Cultram Urban Sanitary District, vice Gordon. £30 per annum.

LEVINGE, E. G., A.B., M.B., L.R.C.S.I., L.M., has been appointed Medical and Sanitary Officer of the Lucan Dispensary District, and to the Local Royal Irish Constabulary, &c.

LITHGOW, T. G., L.R.C.P.L., L.F.P.S.G. & L.M., L.S.A.L., has been appointed Medical Officer and Public Vaccinator to the No. 6 District, comprising Farnborough and Cove, of the Hartley Wintney Union, Hampshire.

PALMER, F. C., L.K.Q.C.P.I., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health to the Brigg Local Board, vice Dr. Paterson, resigned.

PARADISE, T. D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Lowton District and the Workhouse of the Leigh Union, vice Brideoake, resigned.

PEARCE, G., M.D., M.R.C.S.E., has been appointed Honorary Surgeon to the Leicester Infirmary.

POPE, E., M.R.C.S.E., L.S.A.L., has been reappointed by the Aylesbury Rural Sanitary Authority Medical Officer of Health for No. 2 District. £15 per annum.

POWELL, J., jun., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Court Star of West Surrey Lodge of Foresters, Weybridge, vice J. J. Sealy, resigned.

RAMAGE, Mr. J., has been appointed Resident Surgical Assistant at the Aberdeen Royal Infirmary.

RYGATE, B. R., M.B., M.R.C.S.E., L.S.A.L., has been appointed District Medical Officer of the St. George's-in-the-East Union.

SPENCER, C., M.R.C.S.E., L.S.A.L., has been reappointed by the Aylesbury Rural Sanitary Authority Medical Officer of Health for No. 4 District. £23 8s. per annum.

WHITE, J. R., M.B., L.R.C.S.I., L.S.A.L., has been appointed Medical Officer to the Second District of the Ongar Union.

WILCOX, R. W., M.R.C.S.E., L.S.A.L., has been reappointed by the Aylesbury Rural Sanitary Authority Medical Officer of Health for No. 5 District. £25 10s. per annum.

WILLIAMS, W., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Carmarthen Infirmary, vice E. T. Evans, resigned.

Births, Marriages, and Deaths.

BIRTHS.

EDWARDS.—On the 19th March, at St. John's, Antigua, West Indies, the wife of Arthur E. Edwards, M.R.C.S.E., of a son.

GORDON.—On the 20th ult., at Amersham-road, New-cross, S.E., the wife of John Gordon, M.D., of a daughter.

HARDING.—On the 20th ult., at North Lawn, Westgate-on-Sea, Kent, the wife of G. Clarence Harding, M.R.C.S.E., L.R.C.P.Ed., & L.M., of a daughter.

LANCASTER.—On the 22nd ult., at Lewisham High-road, S.E., the wife of H. F. Lancaster, M.D., of a son.

MARRIAGES.

MILLER—DUNCAN.—On the 21st ult., at Littlegill Farm, Lesmahagow, by the Rev. James Arthur Gray, Free Church, Lesmahagow, assisted by the Rev. James M. Cruickshank, St. Rollox U.P. Church, Glasgow (brother-in-law of the bridegroom), John Miller, M.D., of Springburn, Glasgow, to Ellen Wilson, youngest daughter of the late John Duncan, Esq., Farmer, of Littlegill.

PATTISON—JOYCE.—On the 29th ult., at St. Martin's-in-the-Fields, by the Rev. Richard Westthorpe, Edward Seton Pattison, M.R.C.S.E., L.R.C.P.Ed., to Minnie, eldest daughter of Walter Joyce, Esq.

DEATHS.

BROWN.—On the 24th ult., at 64, Lyndhurst-road, Peckham, London, Helen Agnes Daisy, only child of Dr. William Brown, of Dunedin, New Zealand, aged 6 years.

FERGUSSON.—At 43, Claremont-square, William Edward Laing Fergusson, M.D., after a few hours' illness. Friends will please accept this intimation.

GOURLAY.—At his residence, 1, Victoria Buildings, Weston-super-Mare, Frederick Gourlay, M.D., in his 45th year. Friends will kindly accept this intimation.

HAMILTON.—On the 8th February, on board the s.s. *Garonne*, near Adelaide, Alexander McLeod Staveley Hamilton, M.D., M.R.C.S.E., late Medical Superintendent of the Leeds Union Infirmary, aged 29.

HEATH.—On the 22nd ult., at Doverscourt, Essex, Edward Heath, M.D., R.N.

HENRY.—On the 8th ult., at his residence, Claremont Cottage, St. Helier's, Jersey, James Henry, Esq., M.D., Staff-Surgeon, Royal Navy, aged 61. R.I.P.

LLEWELLYN.—On the 10th ult., at 152, Whitechapel-road, Llewellyn Llewellyn, M.D. St. And., M.R.C.S.E. & L.S.A.L., aged 60. Interred in the family vault.

MOYLAN.—On the 20th March, on board H.M.S. *Euphrates*, *en route* to India, W. J. Moylan, Surgeon, A.M.D., son of J. Moylan, Esq., of Rathkeale, co. Limerick, in his 32nd year. Buried at sea. Sincerely mourned by his sorrowing widow and friends.

RUSSELL.—On the 19th ult., at High-street, Lurgan, Philip Crampton Russell, M.D., aged 70.

SAYRE.—On the 11th ult., Charles Henry Hall Sayre, M.D., eldest son of Lewis A. Sayre, M.D., aged 29.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE HEALTH OF STONEHOUSE.

THE medical officer of health for Stonehouse (Mr. T. Leah) reports that the mortality in his district, for the first quarter of the present year, was at the rate of no less than 53·20 per 1000 of the inhabitants per annum. This arose from the exceptional prevalence and great mortality of an epidemic of measles, common to Stonehouse and the conterminous towns of Plymouth and Devonport. As the measles began to subside, a sudden and very general outbreak of diarrhœa among adults occurred. Mr. Leah's report, as it appears in the *Western Morning News*, does not throw any light upon the sources of the exceptional prevalence of measles and of the outbreak of diarrhœa. Quite half of the mortality from measles, it is stated, occurred among children of Marines. This at least would seem to call for some official inquiry into the location and sanitary administration of the Marine establishment there.

House-Surgeon.—It is very unfair; but fees are not usually paid for the attendance of house-surgeons as witnesses at inquests on persons dying within the walls of hospitals.

PERSISTENT VITALITY OF THE UMBILICAL CORD.

To the Editor of THE LANCET.

SIR,—About a month ago I was requested to see a baby, three weeks old, suffering from this very curious condition. The nurse informed me that the ligature used at delivery and the piece of cord (on its distal side) had fallen off about the usual time, but there were no signs of the cord separating at the navel. The child suffered great pain, and for the last few days had cried almost without ceasing. On examination, I found a fleshy outgrowth, fully an inch long, projecting from the umbilicus. It was quite rigid, with a raw granulating appearance, bleeding on the slightest touch, and extremely sensitive, and there was a small central depression at its free extremity. The nurse stated that she had to change the dressing frequently on account of a watery oozing from it. The urine, however, was passed *per vias naturales* in normal quantity. The central depression did not lead into a canal. A strong silk ligature was applied tightly to its base at its junction with the umbilicus. This was attended by some hæmorrhage, as it cut its way through in tightening the knot. Pressure and cotton-wool stopped the bleeding readily, and the latter was left on as a dressing. Next day, on removing the dressing, there was nothing visible but a small thread of dead tissue, which was snipped off with a pair of scissors. In three more days the ligature came away with the dressing, and the navel assumed a normal appearance. The umbilical cord at birth was observed to be unusually thick.

Remarks.—The nature of this case is highly interesting from several points of view: (1) Although the ligature applied at birth had dropped off about the fifth day, the piece of cord on its proximal side had remained attached to the body, become granulated over, and exhibited great vitality. (2) As throwing some light on the much-disputed point of the presence of nerves in the umbilical cord; for it was highly sensitive to the touch, and a source of great suffering to the little one, as evidenced by incessant crying. (3) It is a rare condition, and somewhat allied to a case of patent urachus mentioned by Mr. Bryant, though the difference between the two is important, and at once apparent.

Yours truly,

CHARLES R. WILLIAMS, M.B., C.M. Edin.

Ashby-de-la-Zouch, April 26th, 1880.

Mr. C. J. Stocker.—We are not aware that the precise form of stethoscope has been tried. It would probably be found that the difficulty of maintaining the ear nozzle in position would render it useless, and that, even if successful, it would have no advantage over the ordinary form.

THE POTTER'S FIELD.

IN a notice of the Report of the Board of Health of Louisiana in the *American Journal of Medical Sciences* for April, p. 519, there occurs the following:—

"The bulk of the book is made up of minute reports from the sanitary inspectors of the seven districts in which the city of New Orleans is divided. These records give in detail the facts upon which the generalisations already referred to are founded. It is not, therefore, necessary for us to review them separately, and we will content ourselves with the following indignant protest from Dr. George Holt, of the fourth district, in regard to the pauper burying-ground, the condition of which must go far to account for the dread in which strangers hold the poisonous atmosphere of New Orleans during the summer months:—'This is now the potter's field, a low marsh wherein the sexton performs his heavy task faithfully and as best he can, sometimes floating to their graves the dead and weighting them into their homes, the whole graveyard being often a foot under water. The nature of his field renders it impossible for him to dig these graves deeper than has been his habit. But this is potter's field—an injurious infliction and an outrage upon the living, a disgrace to our humanity, to our morals, and to our city; an indecency perpetrated upon the dead *because they died poor!*"

Voluntar Surgeon.—The legal aspects of the case can only be properly considered by a lawyer. We assume that there were sufficient data for the statement, so that its substantiation need not be difficult. As the memorial was a joint one, the signatories may of course reply collectively. A reporter may attend any public meeting.

P. S. F.—We are not aware of any legal objection to a practitioner taking the office of local "registrar of births and deaths," although he may hold certain union appointments.

SIMPLE DISLOCATION OF THE ASTRAGALUS (REDUCED).

To the Editor of THE LANCET.

SIR,—I was on the point of reading the letter in your impression of April 17th on this injury, when I was called to see a young woman, aged about twenty, who had fallen and hurt her foot. She was descending a flight of steps when she fell, and her foot twisted under her. I found that she had sustained a simple dislocation of the body of the astragalus forwards from off the os calcis, and from under the tibia and fibula. The front part of the foot was twisted inwards; some movement of the foot upon the leg could be obtained. The head of the astragalus apparently remained in the concavity of the scaphoid; but the posterior part of the bone or body turning on the head, as on a pivot, was displaced forwards and outwards. The outer edge of its saddle-shaped facet formed a sharp prominence about an inch and a half in front of the external malleolus; beneath this was felt the facet for the fibula, and behind this again the sharp concave edge of the posterior and external facet for the os calcis. When the patient was under chloroform, the astragalus was quite movable in this abnormal position. There was considerable swelling of the soft parts, and some bruising of the skin over the sharp bony prominence. The woman was taken into the hospital under Mr. Humphry. Chloroform was at once administered, and after some manipulation I was able to replace the bone. It returned to its normal position with a sudden jump and a peculiar "crunching" noise, audible at a distance of several feet.

The case seems to me to differ from those usually recorded, in that the head of the bone remained in position, that neither the astragalus nor the foot was fixed, and in the ease with which the dislocation was reduced.

Your obedient servant,

JOHN C. UHTHOFF, M.D. Lond.,
House-Surgeon to the Sussex County Hospital.

Brighton, April 20th, 1880.

To the Editor of THE LANCET.

SIR,—The letter of your correspondent, Mr. Gore, recalls to my mind a case of simple dislocation of the astragalus which occurred to me in March, 1869, but which in the hurry of work I failed to report.

W. H——, a man, aged fifty, was driving a sow, which would run across the road in front of a horse and cart. He drove the sow on, and then tried to step back out of the way, but, failing to get quite clear, the wheel passed over the front of his left foot, he falling on his back, while the foot was held in this position. I was driving past at the time, and had the man carried home, about 2000 yards distance. On examination, the shape of the foot was so peculiar as to leave no doubt as to the nature of the injury. The absence of the heel, together with projecting bone on the instep, with the skin tightly stretched over it, showed clearly the outline of the astragalus. There was intense pain, but no swelling. I made the man lie down, and hug his thigh as tightly to him as possible. Then standing at his foot, I made firm extension on the heel with both hands, while with my thumbs I pressed firmly on the astragalus. With the second attempt it went back to its place with a loud snap. I bandaged the foot, and applied cold, but little effusion took place. Two nights later, hearing that the sow was littering, he could not resist coming down and attending upon her the whole night, without any bad result, however, and in three weeks he was walking about as usual.

I may add that a very good "sucking pig" formed a not inappropriate first instalment of the doctor's fee.

Your obedient servant,

April 19th, 1880. MARTINDALE C. WARD, M.D., &c.

AN ANTIDOTE TO CARBOLIC ACID.

DR. SENFTLEBEN states that sulphuric acid is a good antidote to carbolic acid, entering into combination with it, and forming an innocuous compound. His formula is dilute sulphuric acid, 10 grms.; mucilage of gum arabic, 200 grms.; simple syrup, 30 grms. A tablespoonful of this mixture to be given every hour. Carbolic acid is unfortunately so often taken in error, even in spite of its powerful odour, that there will be abundant opportunities of testing the value of this recommendation.

"A GOOD EXAMPLE."

To the Editor of THE LANCET.

SIR,—In your last week's issue you draw attention, under the above heading, to a recent resolution of the Council of the Royal College of Surgeons in Ireland against indirect advertising by members of the profession, and no doubt the regulation, if carried out, would be advantageous. I may also suggest that a resolution might also be adopted by the same body which would not be out of place, to the effect that meeting homœopathists in consultation was contrary to the dignity of the Licentiates and Fellows of the College. *Verbum sapienti.*

Your obedient servant,

April 27th, 1880. F.R.C.S.I.

TAPEWORM IN THE LUNGS.

AT a late meeting of the Philadelphia Academy of Natural Sciences, Dr. H. C. Chapman described the lungs and liver of a monkey which were completely disintegrated and filled with cysts produced by an immature form of tapeworm. The animal had belonged to the collection in the Philadelphia Zoological Gardens.

M.R.C.S.—Superintendent registrars of births, deaths, and marriages are appointed by the guardians of the poor of each union or registration district; the clerk to the guardians has, however, a prescriptive right to the appointment. The emoluments of the office arise from fees.

Mr. J. M. Kennedy.—Dunglison's (Messrs. Churchill).

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE following were the questions on Anatomy submitted to the 154 candidates at the primary examination for the diploma of Membership of the College on the 23rd April, when they were required to answer four, and not more than that number, out of the six questions, between the hours of one and three o'clock:—

1. Describe the first rib, naming the structures in immediate relation with it.
2. Describe the ligaments connecting the skull with the spinal column.
3. Describe the coverings and coats of the testicle.
4. Give the dissection necessary to expose the posterior tibial artery; describe its course and relations, and name its branches and their anastomoses.
5. Describe the pelvic fascia in the male, its attachments, arrangement, and relations.
6. Describe the course, relations, and distribution of the musculo-spiral nerve.

The following were the questions on Physiology submitted to the candidates the same day, and with the same conditions, between the hours of four and six o'clock:—

1. Describe an act of deglutition, mentioning in the order of their action the muscles engaged, and their nervous supply.
2. Describe the structure of a lobule of the lung. State the changes which the air and blood respectively undergo in respiration.
3. Describe the conditions requisite for the performance of a simple reflex act. Give examples of reflex acts occurring without sensation, and of others associated with sensation; in each case specifying the several parts concerned.
4. Give the physical characters of urine. What are its normal constituents? State the circumstances which cause variations in them within the limits of health.
5. Describe the structure of a Graafian follicle, and give the changes that take place in it after the discharge of an ovum.
6. How may the function of a nerve be determined? What are the functions of the first four cerebral nerves?

THE QUALITIES OF SEA-WATER AS A POTATION.

To the Editor of THE LANCET.

SIR,—The non-arrival of the training-ship *Atalanta*, with its freight of over 300 lives, and the horrible suspicion that if the ship floats, its living freight is suffering the agonies of thirst from an insufficient supply of water, lead me to address you this note on the important question, How far can life be supported in extreme cases by sea-water? Every year the same pitiful tale is told of shipwrecked sailors, supplied with food, dying of thirst. "Water, water everywhere, and not a drop to drink." Can this be possible? Hoping that you may agree with me in thinking that the question is worth sifting in a scientific journal like THE LANCET, I venture to raise it.

Tales of "castaways" abound with cases of water privation, in which men who have resisted the temptation to drink salt-water have survived; whilst those who have yielded have *speedily* paid the penalty with their lives, dying generally in an outburst of delirium or suicidal mania. So

	Sodic chlor. $NaCl$.	Pot. chlor. KCl.	Mag. chlor. $MgCl_2$.	Mag. sulph. $MgSO_4$.	Calcic sulph. $CaSO_4$.	Cal. carb. $CaCO_3$.	Cal. brom. $CaBr_2$.	Water. H_2O.
English Channel ..	27·00 ..	0·76 ..	3·66 ..	2·09 ..	1·40 ..	0·03 ..	0·03 ..	964·77
Bay of Bengal	20·00 ..	1·00 ..	2·81 ..	1·82 ..	1·36 ..	.. ..	.. ..	968·75

Leaving calcic sulphate and carbonate out of the question as being inert, potassic chloride and magnesic bromide as being insignificant in amount, it will be seen from the foregoing that there are only three salts to be considered—viz., common salt, magnesic sulphate, and magnesic chloride. A pound of sea-water would contain, according to the Channel, or strongest analysis, 188 grains of common salt, 25 grains of magnesic chloride, and 20 grains of magnesic sulphate. These quantities are not in a theoretical sense injurious. Ten times the amount of magnesic sulphate, found in a pound of sea-water, would be considered an ordinary purge. Magnesic chloride is also purgative, but freely diluted, as in sea-water, in much larger quantities than 25 grains. And 188 grains of common salt are less than the average amount excreted from the human body daily. Numerous experiments made in England and France show that the amount of salt daily excreted, under ordinary circumstances, varies from 175 grains to 274 grains. A certain amount of the salt ingested is decomposed and used up in the system, the chlorine going to the formation of chlorhydric acid, required for stomach digestion, and the sodium helping to preserve the balance of density in the fluids of the body. Moreover, some amount of common salt is retained in the body; in the blood, 100 parts of the ash of which contains 54·7 parts of common salt, and in the intestinal tract, in which sodic chloride exerts a most necessary antiseptic and anthelmintic action. It is probable, in view of the foregoing, and of the excretion daily of an amount of salt averaging 225 grains, that over 400 grains of salt should be taken daily to supply the normal wants of the system. This is about the amount consumed from all sources daily by a well-fed person. In the French army the ration of salt is 0·5 ounce, in the navy 0·77; in the Russian army it is 1·59 ounce. But exceptionally large quantities of salt may be taken without hurt. It is no rare thing to give young children for several days together large doses of table salt, in addition to that in their ordinary food, to get rid of worms. Children so treated do not fall in health. For that matter there do not appear to have said the survivors. But it must be remarked that, granted their intelligence, the survivors were not in a fit state to make accurate observations at the times referred to. The main facts, delirium and death, can be easily accounted for in other ways. Exhausted men, moved by the terrors of approaching death, and exposed freely to the chill night winds and noon-tide sun by turns will often die delirious without the intervention of salt-water. Nor, under any circumstances, is it clear why sea-water should act as a *rapid* poison. Not much can be gained from a consideration of the facts of the case as related by survivors broken down in mind and body.

Sea-water is practically of the same composition throughout the world. A specimen taken from the Bay of Bengal, and analysed by Surgeon-Major H. King, M.A., Professor of Chemistry, Madras, was found to contain 3·225 parts of salts per cent. by weight. A specimen taken from the English Channel, and analysed by Schweitzer, contained 3·523 parts per cent. of salts. Subjoined are the analyses in full. To save space the salts are denoted by their symbols:—

Leaving calcic sulphate and carbonate out of the question as being inert, potassic chloride and magnesic bromide as being insignificant in amount, it will be seen from the foregoing that there are only three salts to be considered—viz., common salt, magnesic sulphate, and magnesic chloride. A pound of sea-water would contain, according to the Channel, or strongest analysis, 188 grains of common salt, 25 grains of magnesic chloride, and 20 grains of magnesic sulphate. These quantities are not in a theoretical sense injurious. Ten times the amount of magnesic sulphate, found in a pound of sea-water, would be considered an ordinary purge. Magnesic chloride is also purgative, but freely diluted, as in sea-water, in much larger quantities than 25 grains. And 188 grains of common salt are less than the average amount excreted from the human body daily. Numerous experiments made in England and France show that the amount of salt daily excreted, under ordinary circumstances, varies from 175 grains to 274 grains. A certain amount of the salt ingested is decomposed and used up in the system, the chlorine going to the formation of chlorhydric acid, required for stomach digestion, and the sodium helping to preserve the balance of density in the fluids of the body. Moreover, some amount of common salt is retained in the body; in the blood, 100 parts of the ash of which contains 54·7 parts of common salt, and in the intestinal tract, in which sodic chloride exerts a most necessary antiseptic and anthelmintic action. It is probable, in view of the foregoing, and of the excretion daily of an amount of salt averaging 225 grains, that over 400 grains of salt should be taken daily to supply the normal wants of the system. This is about the amount consumed from all sources daily by a well-fed person. In the French army the ration of salt is 0·5 ounce, in the navy 0·77; in the Russian army it is 1·59 ounce. But exceptionally large quantities of salt may be taken without hurt. It is no rare thing to give young children for several days together large doses of table salt, in addition to that in their ordinary food, to get rid of worms. Children so treated do not fall in health. For that matter there do not appear to be any cases of the poisonous action of common salt on record, if we except tales of shipwrecks. Nor does it seem likely that the magnesic salts taken with common salt, in the proportions given, can be very injurious. In many parts of India, where the people evaporate salt-water in shallow clay basins exposed to the sun, and scrape up and eat habitually the whole of the product as common salt, no ill effect worth mentioning is observed. These people, it must be supposed, from their method of salt manufacture, eat larger quantities of magnesic chloride and sulphate daily than are found in a pound of sea-water. On the sea-board of Ireland it is a common practice for the peasants to drink a large mug of sea-water every morning for the "good of their health"; they also boil their potatoes in sea-water, and get the full benefit of the magnesic salts both ways, with robust health.

The *Journal de la Société de Médecine de Caen et de Calvados* published some time ago, from the pen of M. Juan, an account of the salt-water drinkers of the Oceanic Islands. These remarkable people, who live on the madreporic atolls of the Pacific, such as the Paumotan Islands, where there are neither brooks nor springs, drink *all the year round* brackish well-water, which is nothing but sea-water imperfectly filtered. M. Juan also mentions the case of a ship which went to Mexico in 1838 with troops. The water on board ran short, and was rationed in small quantities. Some sailors consequently began to drink sea-water, but were soon obliged to leave it off. One man, however, persevered until the ship arrived in Mexico. This man never complained of the sea-water; the only difference remarked in him was that he got yellower.

Here are shown theoretical and practical reasons, from which it may be concluded that in extreme cases, given a food supply, such as ship's biscuit, a pound or more of sea-water may be taken daily with a reasonable hope of prolonging life.

I am, Sir, yours faithfully,

JAS. J. L. RATTON, M.D.,

Dublin, April 20th, 1880. Surgeon-Major.

WAKES.

A FEW days ago a man was summoned at the Birkenhead Police Court for neglecting to properly disinfect his house after the occurrence of typhus fever in it. But the defendant proved that disinfection had been attended to, and the case was dismissed. The nuisance inspector, however, in the course of the proceedings mentioned a fact which, if true, shows the danger as well as the folly of the practice of "waking" the dead. He said this was the thirty-first case of typhus fever which had originated in the neighbourhood from the exposure of a dead body at a wake last November.

G. H. P. asks if San Goarshausen on the Rhine is a resort against hay fever? We have been unable to find any information on the subject.

An Aberdeen University Student.—Of course if the true skin is destroyed it cannot be replaced. Repair will be by a cicatrix of connective tissue.

ARSENIC IN SKIN DISEASE.

To the Editor of THE LANCET.

SIR,—Mr. Malcolm Morris's letter in your issue of April 17th, in which he says that "arsenic should never be combined with any other drug....in order to obtain its full therapeutical value," will surprise not a few of your readers.

I am in a position to take a distinctly opposite view, because my practice is in some respects peculiar, attached as I am to a Manchester hospital. Many patients come from towns round about. When from any cause they are ill, lazy, careless, or out of work, a visit to the "club doctor" or to their local infirmary takes the place of one to Manchester. In scores of such cases I find that the medico consulted prescribes for the cough (or what not), and, finding that the patient has been attending the Skin Hospital, gives him, besides, solution of arseniate of potash in water, with the remark that "he will get as much good from that as from anything he will get at Manchester." I have thus, Sir, a large experience of the value of arsenic uncombined, and I unhesitatingly say that not one patient in fifty will gain as much benefit from it as he would if it had been judiciously combined with other drugs. Does it not seem reasonable, as skin diseases are often aided and abetted, if not caused, by functional or structural alterations in various systems other than the cutaneous, that drugs such as liquor potassæ, tincture of capsicum, "or even iron," should be of great use? It is, of course, open for Mr. Morris to reply that he is writing not of benefiting the patient, but "of the full therapeutical value of arsenic." Well, Sir, the subject is sufficiently important for me to hope that some gentlemen of large experience, and whose opinions are of weight, will favour us with their views on this matter. I differ *toto cœlo* from this view of Mr. Morris, and I sum up thus: A patient comes to me suffering from psoriasis. We all know that arsenic is *the* remedy. Mr. Morris would give it alone, while I would combine it with other drugs according to the circumstances of the case. Which is the right view? I pause for a reply. I am no enthusiast in the use of arsenic, but prescribe it about 400 times per annum.

In conclusion, let me remind those interested in this matter of the very uncertain strength of Fowler's solution as sold by wholesale druggists. I have met with five cases of patients suffering from symptoms of arsenical poisoning, who had been taking, or supposed they were taking, arsenic, but from some accident had their prescriptions made up at a different druggist's shop. One last objection to Mr. Morris's dictum is this—viz., patients are all too ready to ask "What is good for such and such a disease?" They already have practically command of chloral, laudanum, chloroform, and chlorodyne. Should the verdict of the profession favour Mr. Morris's view, we must add arsenic.

I remain, Sir, yours truly,

Manchester, April, 1880. H. STANLEY GALE.

M.R.C.S., L.R.C.P., &c.—Apply to the Secretary of the Graduates' Association, Dr. F. E. Pocock, 20, Golborne-road, Upper Westbourne-park, W.

Poor-law Surgeon might write to Dr. Joseph Rogers, whose address is now 33, Soho-square, W.

J. H. W.—We do not know the address.

ECZEMA.

To the Editor of THE LANCET.

SIR,—I shall be obliged if any brother practitioner would suggest some remedy for the cure of eczema rubrum. I have a case in which I have tried everything I know. Yours faithfully,

April 21st, 1880. M.R.C.S.

FEES FOR MEDICAL EVIDENCE AT INQUESTS.

To the Editor of THE LANCET.

SIR,—Can a coroner compel me, a house-surgeon, to make a post mortem examination, walk to the place where the inquest is held, and remain there for *three* hours while the other witnesses were giving their evidence, then to give my own skilled evidence, and walk back again to hospital without a fee? Yours faithfully,

W. S. BYRNE, M.B.

Metropolitan Free Hospital, Commercial-street, April, 1880.

*** This is a question which ought to be tried. When the inquest is held in the hospital, no fee is given. This is intolerable; but we doubt whether the additional trouble entailed by attending at another place would not give ground for a fee.

TYPHUS IN GREENOCK.

THE medical officer of health (Dr. James Wallace), in his report for the five weeks ending the 3rd April, records twelve cases of typhus as occurring during that period. One case came from Port Glasgow, and the other eleven were distributed among four families. Six were traceable to cases previously reported on, while five (all in one family) had the disease imported apparently from Largs.

Mr. R. Fullerton.—The announcement is inserted in THE LANCET of April 24th.

"TOBACCO-HEART."

To the Editor of THE LANCET.

SIR,—In your Journal for January 3rd I read a letter from the late Dr. Parkes upon tobacco-smoking. In this letter he expresses a doubt as to the evil effects of the use of it. The tenour of that letter leads me to suspect that Dr. Parkes was not thrown in contact with a class of cases which we have in New England, and which, for want of a better term, I have called in the index to my cases (all being, more or less fully, recorded at the time of examination), "Tobacco Heart."

Many years since I satisfied myself that a person could smoke two or three cigars daily for many years, and often without difficulty; but some sensitive natures could not use even that amount without suffering. The majority of smokers are not so abstemious, and the use of five or ten cigars daily will very frequently cause pain and uneasiness about the region of the heart, and, at times, palpitation; these will be the most marked, if not the sole, symptoms complained of. Such patients have no œdema, no marked dyspnœa. They can walk fast around the room without getting out of breath. There are no physical signs save of health; they have none of the congestions of the lungs observable so often when organic valvular lesions exist. Nevertheless, the cardiac pain is so annoying that the patients can hardly be persuaded to believe that there is no organic disease; much less can they be led to believe that tobacco is the sole cause of their trouble, and that the first step to be taken is to give up wholly the use of the stimulant.

Similar, but less striking and annoying, effects are sometimes produced in this country by coffee. I have thought that the stimulating influences of our climate may contribute to this result; for Americans who may take coffee with ease in Europe, often begin to suffer after their return home. Some persons find it impossible to use coffee, even in minute quantities, after once their system has been, as it were, saturated with it. Similar results follow the use of tobacco.

You may ask why I, at this distance from you, undertake to write an answer to Dr. Parkes's private letter. Dr. Parkes I never had the happiness to meet; but we knew one another, and occasionally corresponded, and I always looked upon him as one of your noblest Englishmen. An opinion given by him *meant something*. It seemed to carry weight. If I had seen that letter before Dr. Parkes died, I should certainly have written to him upon the subject. It is for this reason I now send to you. I remain, respectfully yours,

Boston, U.S.A., March 29th, 1880. HENRY I. BOWDITCH.

Occasional Reader. — 1. The London University. —2. Refer to the Calendar.

Subscriber.—We have no reason to believe the contrary; but the question is a legal one.

CASE OF SUPERVITATION.

A CASE of an extraordinary character is recorded in *Gaillard's Medical Journal* for April. The author of the narrative is Mr. W. H. Tate, who states as follows:—

"Several years since Dr. D—— was called to attend Mrs. N—— in confinement, whom he found in labour with her second or third child. He delivered her of a healthy male child, which had no signs of deformity except enlargement of the abdomen. The child prospered well, though its abdomen daily increased in size, and at the age of five weeks he was sent for to perform an operation on the child, which he declined doing. About twenty weeks after its birth Dr. D—— was called again in haste, the infant having fallen against a stove whilst amusing itself with playthings, and cut its head considerably. On arrival he found the child dead. The post-mortem revealed a fœtus in the abdominal cavity, which weighed about five or six pounds. Umbilical cord attached to the great omentum, and the head of the fœtus attached to the lower portion of the child's stomach; top of the head extending several inches into the stomach; hair on head of fœtus three or four inches long."

MEDICAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—I would ask the Editor of THE LANCET whether it is in accordance with strict etiquette for a practitioner who has been called in consultation with the family attendant to supersede him in the charge of the case if the friends become dissatisfied with its progress?—Yours &c.,

April, 1880. VERITAS.

DIAGNOSIS OF RENAL CALCULUS.

To the Editor of THE LANCET.

SIR,—In your impression of April 17th a letter appears from Mr. Barker, on "A means of Diagnosis of Renal Calculus." In this method Mr. Barker has been preceded by the late Dr. Simon, of Heidelberg, who, in his work on the Surgery of the Kidneys, describes a sound on the principle of an exploring trocar for the detection of stone in the kidney. Your obedient servant,

Tottenham, April, 1880. E. HOOPER MAY, F.R.C.S.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Buzzard, London; Mr. C. Bader, London; Mr. L. Holden, London; Mr. Startin, London; Dr. Baylis; Mr. Cottle, London; Sir Sherstone Baker, London; Dr. Lewis; Mr. Culpin; Mr. Green, Bath; Mr. Byrne, London; Mr. B. Parkin, Sheffield; Mr. Stocker, Upton; Dr. Goldie, Leeds; Dr. Sandwith; Mr. Marshall, Manchester; Mr. W. J. Smith, Rotherham; Mr. Lush, Fyfield; Mr. C. R. Williams, Ashby-de-la-Zouch; Mr. Lenihan, Salford; Mr. Parsons, Hastings; Dr. A. Duke, Dublin; Dr. Lowe, Lynn; Dr. Hare, London; Mr. Cæsar; Dr. Garlick, London; Mr. Mogford, London; Dr. Marshall, Nottingham; Dr. H. Dunbar; Mr. Reckitt, Newark; Mr. Popert; Mr. Walner, London; Mr. Page; Captain Hobson; Mr. Rix, Bradford; Dr. Lloyd, London; Mr. Kempe; Lieut. Fox, R.N.; Dr. Mawer, Bucharest; Mr. Edwards, Carlisle; Mr. Bull; Mr. R. Harrison; Mrs. Haycroft; Mr. Latham, London; Messrs. Weiss; Mr. Radford, Ben Rhydding; Mr. Baker, Birkenhead; Mr. Foster, London; Mr. Gaddis, London; Dr. Skrimshire, Holt; Mr. Watt, London; Messrs. Richardson and Co., Leicester; Mr. Brayn, Glasgow; Dr. Redwood, Rhymney; Surgeon-Major Currie, Dawlish; Mr. Roebuck, Leeds; Messrs. Cornish Brothers; Mr. Wilson, Huddersfield; Messrs. Smith and Son, Manchester; Mr. Hoblin, Aylesbury; Messrs. Curtis and Co., London; Mr. Courtenay, Lucas; Dr. Rogers, London; Mr. Murphy, London; Mr. S. Snell, Sheffield; Dr. Armstrong, Newcastle-on-Tyne; Dr. Gee, Liverpool; Mr. Davies, Carlisle; Mr. Woodhouse, Hertford; Mr. Gunning, Enniskillen; Mr. Foweraker; Mr. G. W. South, Blackheath; Mr. Cant, Lincoln; Mr. Wyld, London; Dr. Page, Kendal; Mr. Godfrey; Mr. Goodsall, London; Dr. Lucas, Quettah; Mr. Fowler, Lincoln; Mr. T. Butler; Dr. Evans, Cardiff; Mr. Steele; Mr. Nursey, Sunderland; Mr. Sephton, Liverpool; Mr. Mahon; Commander Dawson; Mr. S. Eaton, Dublin; Mr. Canty, London; Mr. Watson, South Stockton; Mr. D. Edwards, Denstone; Mr. Peachell, High Wycombe; Mr. Mackenzie; Mr. Rugg; Mr. Partridge, Alvechurch; Mr. Craigie, London; Dr. Bartholemeusz, Quettah; Dr. Tatham, Salford; Mr. J. Morris; Subscriber; A. N.; An Aberdeen University Student; The Secretary of the Faculty of Physicians and Surgeons, Glasgow; D. M.; M.D., Demerara; H. A.; P. S. F.; W. R. R., Birmingham; A. K. N.; D. J.; Sacul, London; Veritas; Devoniensis; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Ivans, Kidderminster; Messrs. Kilner Brothers; Messrs. Parsons and Co., Manchester; Mr. Hopgood, Chipping Norton; Mr. Keay, Eastbourne; Mr. Bogg, Bowden; Mr. Jones, London; Dr. Bruce, Nice; Mr. Brown, Peckham; Dr. Kennedy, Dublin; Dr. Reid, Tunby; Mr. Smith, Hyde; Messrs. Jolly and Sons, Norwich; Mr. Brett, Leicester; Mr. Elliott, Carlisle; Mr. Brooks, Fareham; Mr. Robinson, Chesterfield; Dr. Bardock, Magherafelt; Mr. Sergent, London; Mr. M'Gill, Littleborough; Messrs. Oliver and Boyd, Edinburgh; Mr. Eschwede, London; Mr. Reynolds, Clare; Mr. Gordon, Kensington; Mr. Hunter, Baillerton; Messrs. Wright and Co., London; Mr. Hine, Nottingham; Mr. Atkinson, Farnham; Rev. J. Redford, Silloth; Dr. Redmond, Gateshead-on-Tyne; Mr. Stone, Bow; Dr. Keighley, Sheffield; Mr. Wheeler, Manchester; M.D., Kentish-town; Physician, Pall-mall; W. R. R., Smethwick; Medicus, Southport; Alpha, Newport; Beta, Heckmondwike; Medicus, Leicester; A. B.; Omega, Stockwell; Medicus, Sheffield; Beta, Aberdeen; A.R., Bishops Stortford; S. W.; B. L.; Medicus, Dolgelly; Dr., Middleton; M.R.C.S., Wolstanton; Medicus, Cork; Janos; W. G., Stratford; Alpha, King's-cross; A. H., Dartford; Medicus X.; L. M. N.; W. D.; W. W., Market Rasen; W. M., Bradley; Epsilon, Hastings; Boyatt; Medicus; Surgeon, Brixton; &c.

Daily Bristol Times and Mirror, Western Lancet, West-Cumberland Times, Dublin Express, Western Mail, Torquay Times, Lurgan Times, Record, Mexborough Times, Kensington News, Saturday Bristol Times, Bournemouth Visitors' Directory, Evening Mail, Sussex Daily News, Hastings and St. Leonards Times, Evening News, &c. &c., have been received.

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Agent for the Advertising Department in France—

M. BERTHIER, 104, Boulevard St. Germain, Paris.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, April 29th, 1880.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 23	30·09	W.	50	46	97	63	40	..	Cloudy
,, 24	30·08	W.	55	51	84	60	43	..	Cloudy
,, 25	29·96	N.W.	54	49	93	59	46	..	Cloudy
,, 26	30·01	N.	51	47	85	53	40	..	Overcast
,, 27	30·26	N N E	45	41	77	51	35	..	Hazy
,, 28	30·13	N N E	47	43	..	52	40	..	Cloudy
,, 29	30·23	N.	47	44	94	56	41	..	Cloudy

Medical Diary for the ensuing Week.

Monday, May 3.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
MEDICAL SOCIETY OF LONDON. — 8½ P.M. Conversazione. — Annual Oration by Dr. W. H. Broadbent. Subject: "The Pulse and some of its indications."

Tuesday, May 4.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. R. H. Scott, "On Wind and Weather."
PATHOLOGICAL SOCIETY OF LONDON. — 8½ P.M. The following Specimens will be shown:—Imperforate Anus; Volvulus in an Infant; Complete Necrosis of Lower Jaw, with Cancrum Oris; Diffuse Sarcoma of Liver in an Infant aged three weeks; Ossifying Chondrosarcoma of the Left Femur, with Secondary Growths; Congenital Talipes Varus and Talipes Calcaneus; Tendo Achillis divided in a Case of Pseudo-hypertrophic Muscular Paralysis; Sequel of a Case of Syphilitic Gummata; Kidneys showing the Cystic Degeneration of Adults; Complete Excavation of one Lung; Acute Fatty Atrophy of the Liver; Aneurism of Aortic Arch Rupturing into Trachea; Congenital Syphilitic Ulceration of the Tongue; &c. &c.

Wednesday, May 5.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.
EPIDEMIOLOGICAL SOCIETY.—7 P.M. Council Meeting.—8 P.M. Surgeon-General John Murray, "On Removal in Epidemic Cholera."—Dr. Lawrence Hamilton, "On the Report of the German Medical Commission on the Outbreak of Plague in the Province of Astrakan in 1879."
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimen: Encephalocele, by Dr. Godson. — Papers: Dr. Braxton Hicks, "On Recording the Fœtal Movements by means of a Gastrograph"; also, "On a Case of Extra-uterine Fœtation; sudden urgent Symptoms; Abdominal Section."—Dr. C. H. Carter, "On two Cases of Extra-uterine Fœtation, with Results."

Thursday, May 6.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Light as a Mode of Motion: Theories of Light and Colours."
HARVEIAN SOCIETY. — 8½ P.M. Mr. Reeves, "On Rectal Stricture, with special reference to Rectotomy and Twenty-five Colotomies."—Mr. Cripps Lawrence, "On Rickets."

Friday, May 7.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—8 P.M. Evening Meeting.—9 P.M. Professor Flower, "On Fashion in Deformity."

Saturday, May 8.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor H. Morley, "On the Dramatists before Shakespeare."